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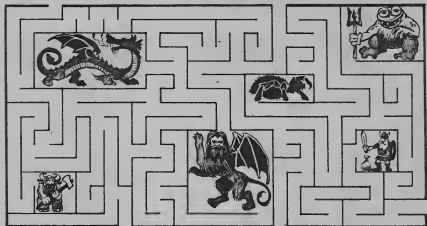
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EDITORIAL: THE NAME OF OUR FIELD

In last issue's editorial, I talked of Jules Verne's "extraordinary voyages" and that brings up the point of how difficult it was to find a name for the kind of items that are published in this magazine and others like it.

This magazine contains "stories"; and "story" is simply a shortened form of "history", a recounting of events in orderly detail. The recounting could, in either case, be of real incidents or of made-up ones, but we have become used to thinking of a "history" as real and of a "story" as made-up.

A "tale" is something that is "told" (from the Anglo-Saxon) and a "narrative" is something that is "narrated" (from the Latin). Either "tale" or "narrative" can be used for either a real or a made-up account. "Narrative" is the less common of the two simply because it is the longer word and therefore has an air of pretentiousness about it.

A word which is used exclusively for made-up items and never for real ones is "fiction" from a Latin word meaning "to invent."

What this magazine contains, then, are stories—or tales—or, most precisely, fiction. Naturally, fiction can be of different varieties, depending on the nature of the content. If the events recounted deal mainly with love, we have "love stories" or "love tales" or "love fiction." Similarly, we can have "detective stories" or "terror tales" or "mystery fiction" or "confession stories" or "western tales" or "jungle fiction". The items that appear in this magazine deal, in one fashion or another, with future changes in the level of science, or of science-derived technology. Doesn't it make sense, then, to consider the items to be "science stories", or "science tales" or, most precisely, "science fiction"?

And yet "science fiction", which is so obvious a name when you come to think of it, is a late development.* Jules Verne's extraordinary voyages were called "scientific fantasies" in Great Britain, and the term "science fantasy" is still sometimes used today.

* Incidentally, for a definitive discussion of this subject, see Chapter 19 of *Explorers of the Infinite* by Sam Moskowitz.



"Fantasy" is from a Greek word meaning "imagination" so it isn't completely inappropriate, but it implies the minimal existence of constraints. When we speak of "fantasy" nowadays, we generally refer to stories that are not bound by the laws of science, whereas science fiction stories *are* so bound.

Another term used in the 1920's was "scientific romance." Romance was originally used for anything published in the "Romance languages," that is, in the popular tongues of western Europe, so that it was applied to material meant to be read for amusement. More serious works were written in Latin, of course. The trouble is that "romance" has come to be applied to love stories in particular so "science romance" has a wrong feel to it.

"Pseudo-science stories" was sometimes used, but that is insulting. "Pseudo" is from a Greek word meaning "false," and while the kind of extrapolations of science used in science fiction are not true science, they are not false science either. They are "might-be-true" science.

"Super-science stories," still another name, is childish.

In 1926, when Hugo Gernsback published the first magazine ever to be devoted exclusively to science fiction, he called it *Amazing Stories*.

This caught on. When other magazines appeared, synonyms for "amazing" were frequently used. We had *Astounding Stories*, *Astonishing Stories*, *Wonder Stories*, *Marvel Stories*, and *Startling Stories* all on the stands, when the world and I were young.

Such names, however, do not describe the nature of the stories but their effect on the reader, and that is insufficient. A story can amaze, astound, astonish, and startle you; it can cause you to marvel and wonder; and yet it need not be science fiction. It need not even be fiction. Something better was needed.

Gernsback knew that. He had originally thought of calling his magazine "Scientific Fiction." That is hard to pronounce quickly, though, chiefly because of the repetition of the syllable "fic." Why not combine the words and eliminate one of those syllables? We then have "scientifiction".

"Scientifiction", though, is an ugly word, hard to understand and, if understood, likely to scare off those potential readers who equate the "scientific" with the "difficult." Gernsback therefore used the word only in a subtitle: *Amazing Stories: the Magazine of Scientifiction*. He introduced "stf" as the abbreviation of "scientifiction". Both abbreviation and word are still sometimes used.

When Gernsback was forced to give up *Amazing Stories* he pub-

lished a competing magazine *Science Wonder Stories*. In its first issue (June, 1929) he used the term "science fiction" and the abbreviation "S.F."—or "SF" without periods—became popular. Occasionally, the word has been hyphenated as "science-fiction", but that is only done rarely. The story, however, doesn't end there.

As I said last issue, there is a feeling among some that the phrase "science fiction" unfairly stresses the science content of the stories. Since 1960 in particular, science fiction has tended to shift at least some of its emphasis from science to society, from gadgets to people. It still deals with changes in the level of science and technology, but those changes move farther into the background.

I believe it was Robert Heinlein who first suggested that we ought to speak of "speculative fiction" instead; and some, like Harlan Ellison, strongly support that move now. To me, though, "speculative" seems a weak word. It is four syllables long and is not too easy to pronounce quickly. Besides, almost anything can be speculative fiction. A historical romance can be speculative; a true crime story can be speculative. "Speculative fiction" is not a precise description of our field and I don't think it will work. In fact, I think "speculative fiction" has been introduced only to get rid of "science" but to keep "s.f."

This brings us to Forrest J. Ackerman, a wonderful guy whom I love dearly. He is a devotee of puns and word-play and so am I, but Forry has never learned that some things are sacred. He couldn't resist coining "sci-fi" as an analog, in appearance and pronunciation, to "hi-fi", the well-known abbreviation for "high fidelity." "Sci-fi" is now widely used by people who don't read science fiction. It is used particularly by people who work in movies and television. This makes it, perhaps, a useful term.

We can define "sci-fi" as trashy material sometimes confused, by ignorant people, with SF. Thus, *Star Trek* is SF while *Godzilla Meets Mothra* is sci-fi.

—Isaac Asimov

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ON BOOKS

by Charles N. Brown

The Courts of Chaos by Roger Zelazny: *Galaxy* 1977, 1978: Doubleday forthcoming.

Dying of the Light by George R. R. Martin: Simon & Schuster, 1977, 365 pp., \$9.95.

Mastodonia by Clifford D. Simak: Del Rey, 1978, 240 pp., \$7.95.

Journey by Marta Randall: Pocket Books, 1978, 336 pp., \$1.95, paper.

Rime Isle by Fritz Leiber: Whispers Press, 1977, 185 pp., \$10.00.

A Winter Wish and Other Poems by H. P. Lovecraft: Whispers Press, 1977, 190 pp., \$10.00.

Murgunstrumm and Others by Hugh B. Cave: Carcosa 1977, 475 pp., \$15.00.

Virgil Finlay in the American Weekly: Nova Press, 1977, 24 plates, \$10.00.

The Creation of Tomorrow; Fifty Years of Magazine Science Fiction by Paul A. Carter: Columbia University Press, 1977, 318 pp., \$12.95.

Somerset Dreams and Other Fictions by Kate Wilhelm: Harper & Row, 1978, 192 pp., \$8.95.

In 1970, Doubleday published *Nine Princes in Amber* by Roger Zelazny in a small edition, which was inadvertently pulped within three months. Only about 1200 copies exist, and it has become Zelazny's rarest first edition. The book turned out to be only the beginning of a five volume novel, which has finally been concluded (maybe) with *The Courts of Chaos*. *Nine Princes in Amber* was an immediate success with the few who were lucky enough to get a first edition, and became a very popular book once the paperback edition appeared in June 1972. It's a fast-moving sword-and-sorcery tale set on a number of alternate worlds with a large cast of interesting characters. The book is written in Zelazny's poetry/wisecracking style, which works even better in fantasy than in science fiction. The world of Amber developed a cult following similar to those that grew up around Tolkien, Burroughs, Star Trek, and others. There is an Amber society, Amber fanzines, Amber inspired art work, and Amber costumes in the annual convention masquerades. The next three books, *The Guns of Avalon* (1972), *Sign of the Unicorn* (1974), and

The Hand of Oberon (1976), added a bit here and a bit there, but failed to satisfy because each one raised more problems without an ultimate solution. I'm glad to report that *The Courts of Chaos* is wholly enchanting (in more ways than one) and brings the Amber series to a satisfactory conclusion without closing the door for sequels if Zelazny ever feels inclined to do so. (He doesn't at the moment.) Don't miss this excellent addition to the sword and sorcery canon.

George R.R. Martin has deservedly won several awards for his moody short fiction. *Dying of the Light*, his first novel, has some defects; but overall it is a successful book. A shorter version of this novel appeared in *Analog* as "After the Festival" and, in many ways, is even more successful than the longer book, which meanders a little. The plot is nothing more than an extended chase which goes on far too long. The galactic background, similar to that Martin uses in most of his shorter fiction, is excellent; the world he creates is infesting; the characters only fair. The somewhat overwritten descriptive passages clash with the fast-moving chase scenes, giving the book an uneven pacing; but the book is never dull. Martin knows how to hold the reader and will probably be one of our finest novelists of the next decade.

Clifford D. Simak has been a science fiction writer since 1931, and his writing has grown and changed with the times. He still turns out a new novel almost every year. *Mastodonia*, a leisurely paced book set in the midwest and in prehistoric times, is very similar to his last dozen books. It's short on excitement and innovation, but is very readable and has a cast of very sympathetic characters. Good for a quiet evenings entertainment.

Marta Randall has taken the popular, family-saga-type novel and turned it into a major piece of science fiction. *Journey* is the story of both a family, the Kennerins, and a frontier world, Aeerie. It covers about 20 years in their lives. The characterizations are marvelous. Randall has created real, sympathetic people and told their story, their triumphs and failures—both physical and emotional—with skill and understanding. Even the minor characters come alive. The book is extremely long but never dull. I made the mistake of starting it late one night and found myself unable to stop in the middle. There are some minor flaws in plotting—a race of interesting aliens are never fully developed and the galactic background is too sketchy—but the excellent characterizations more than make up for it. This is the best original novel I've read so far this year. Highly

recommended.

Whispers Press, a new limited-edition publisher, has issued two books of interest to collectors. *Rime Isle* by Fritz Leiber, the first hardcover edition of two connected stories "The First Monstreme" (1976) and "Rime Isle" (1977), is illustrated by award winning artist Tim Kirk and limited to 2500 copies. There are also 250 copies of a signed, numbered edition available for \$20.00 each. Although both stories are also available in the Ace paperback, *Swords and Ice Magic*, this handsome edition is a must for Leiber collectors. Whispers has also issued *A Winter Wish and Other Poems* by H.P. Lovecraft, edited and with an introduction by Tom Collins. This first major collection of Lovecraft's poetry is limited to 2,000 copies at the regular price, plus 200 copies numbered and signed by the editor and artist at \$20.00 each. Copies of both the regular and limited editions should be ordered from Whispers Press, Box 1492-W, Azalea St., Browns Mills NJ 08015.

For the horror enthusiast, Carcosa has published a 2,000 copy edition of *Murgunstrumm and Others* by H.B. Cave, a huge collection of 26 stories by a neglected *Weird Tales* author. The book is profusely illustrated by Lee Brown Coye and is the usual fine Carcosa production job. Order directly from Carcosa, Box 1064, Chapel Hill NC 27514.

You will have to hurry if you want a copy of *Virgil Finlay in the American Weekly*, a large size, bound portfolio of 24 fine Finlay illustrations never before reprinted. Only 594 numbered copies were produced and the publisher has under 200 copies left. There is an introduction by Beverly Finlay. Order directly from Tim Underwood, Box 5402, San Francisco CA 94101. It's well worth the \$10.00 price tag.

The Creation of Tomorrow; Fifty Years of Magazine Science Fiction by Paul A. Carter is an excellent fusion of criticism, history, and nostalgia written in a clear, concise style. Carter, a professor of history, has written and published a number of SF stories and seems to have read almost everything in the field. This book isn't quite a history of the magazine field. Carter organizes it around some of the basic themes of science fiction and discusses only individual stories and magazines that fit his preoccupations. His balanced views and good writing make this an important and readable addition to the reference library about science fiction.

There isn't much that could be considered straight science fiction in Kate Wilhelm's new collection, *Somerset Dreams*, but

who cares? Wilhelm is a fine writer and I'm glad there's enough fantasy involved here to mention it. Of the eight stories included, four are from *Orbit*, two from other original anthologies, one from *Cosmopolitan*, and one, "Mrs. Bagley Goes to Mars", is an original. All are strong emotional exercises with fascinating characters; and, by stretching the definitions, about half can be considered science fiction or fantasy. It's a fine collection.

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THE LAST FULL MEASURE

by George Alec Effinger



The author, who now lives in New Orleans, notes that he has "become all decadent and covered with Spanish moss." His first published story appeared in 1971; since then, he's published seven novels and three collections of his short stories. Mr. Effinger further tells us that he has in progress a suspense novel and a non-fiction work on pinball, which he plays obsessively. We cannot understand how the Spanish moss can move fast enough to keep up with him.

It was D-Day, the sixth of June, 1944.

Corporal Bo Staefler sat in an LST, hugging his rifle, trying not to be sick. The sun had risen half an hour before, but the gray sky and the clouds of black smoke had robbed that celestial event of any comfort it might have given the assault troops. A hard, cold wind blew into their faces. The seas were so rough that Staefler was looking forward to leaving the craft and taking his chances instead with the German coastal defenses. He was cold, he was soaked by the sea water, he was hungry, tired, and scared. In a moment the front of the LST would yawn open and he would have a long, slow run through the waist-deep water to Utah Beach.

It would be the third time that day that Staefler had landed as part of the Normandy Invasion.

§ § §

The first time was still sharp and clear in his memory. He had ridden in the LST for hours, trying to ignore the motion of the craft as it plowed determinedly on through the high seas. He had braced himself against a bulkhead, feeling the thrum of the engines in his whole body, through his feet on the deck, through his buttocks, his spine, his helmeted skull. He was frightened and he was as seasick as a human being could possibly be. He tried to blot it all out. First he concentrated on his sergeant; that was no good, though, because Sgt. Weinraub was as frightened and seasick as he was. Both Staefler and Weinraub turned to Lt. Marquand, but the lieutenant, too, was worried and sick. So Staefler turned his attention to the magazine he had carried for almost three months. It was a science fiction magazine, a pulp magazine with a woman and a machine and a creature on the cover. It was called *Awesome Science Fiction Stories*. The stories inside had relieved his boredom on several occasions, had quieted his fear less successfully, and had had no effect at all on the nausea and sickness. Still, Staefler stared grimly at the page before him. It was the beginning of a serialized novel, entitled *Space Spy*, written by Sandor Courane, one of Staefler's favorite science fiction writers. He had read the first installment four times before D-Day, and he had read that first page over twice since dawn. He wasn't paying any attention at all to what he was reading.

There was a sound like the gates of Hell clanging open. The LST had chugged to a halt and the forward bulkhead had dropped, becoming a ramp out into the gray water. All the men looked at each other. They were all shiny with sweat, despite the cold air.

No one said anything for a few moments. Then, at last, Lt. Marquand said, "All right." That was all he said. Staefler stood up with difficulty, as the rolling LST tried to throw him down. He dropped the magazine without thinking. Without thinking, he followed the other men into the water. He reached the beach without thinking. He was bewildered; he didn't know how he had got to the shore. He didn't remember the run through the waves.

Someone was yelling for him to get down. He looked around. He saw men on all sides of him. They were all getting down. It seemed like a terrifically sound idea. Staefler was preparing to get down himself when a silent, invisible wall crushed him to the hard, wet sand. He had been careless. He had stood too close to the place where a German shell had planned to explode. He had been killed instantly.

That was the first time that Staefler had charged the beach. He had become a casualty, one of the first heroes of the Invasion, a debit on the ledger of the U.S. First Army, VII Corps, 4th Infantry Division. His tags would later be collected, and Lt. Marquand would feel a sense of loss, and letters would be written back and forth, and people would be notified, and there would be sadness and appreciation and wreaths and a name chiseled into marble at several different locations in France and England and Washington and in Staefler's home town. This would happen later, much later, of course. What happened immediately after Staefler's death was a good deal stranger.

Staefler didn't want to open his eyes. Everything was very quiet. He knew that he was dead. It was the kind of thing you don't have to have explained to you. When an artillery shell explodes at your feet, even though you don't actually hear it, the effect is unmistakable. Your body is no longer home to your soul. Your mind has tiny instant to say to itself, "I'm dead," and then it fades out. It's like the screen in a movie theater at the end of a film: the final credits disappear and the light melts away, fading fast to black, shrinking, funneling down into the center, where there's just a moment of light. Then that last spark goes out and that's it. Dead. Black. Nothing.

So in that last instant, Staefler's mind knew it. "I'm dead." Fadeout. Black.

Nothing? No. There was still something there, a gray at the edge of perception. A kind of dawn. The black lifted. It grew brighter and brighter. Then Staefler could see again. He was whole. He was alive. He was sound and unhurt. "I didn't want

death to be like this," he thought. He had never had any religious feelings, and he had lived his life according to the intuition that death ended the matter. If he had known that there *was* something after death, after all, he would have behaved differently. Now, as he sat up, knowing that he had definitely died and he was definitely conscious, he wondered what was going to happen to him. He waited for God or someone to tell him what to do.

Something did, eventually, but it wasn't God. It was a tall thing, something like a man but taller and foul-smelling and cruel. The thing was clothed in black. The only features Staefler's mind recognized were the thing's eyes. They were golden eyes, and they were awful to look into. The thing came into the cell—a room, thought Staefler, and that meant he was *someplace*—and herded him out, into a hallway. The walls were gray, without divisions between floor and wall and ceiling. Everything was the same gray color. Staefler had no idea what kind of place he was in, but it made him feel better to think that it wasn't a spiritual place. It was definitely real and physical. His body was real, too, and that made him feel even better.

The black creature pushed him along until they came to an entrance into another chamber, identical to the first except larger. In the room were two other people. They were people after a fashion, only in the loosest manner of speaking. They were people, compared to the black thing. Actually, one of the people was a kind of ape man, as Staefler thought, a cave-man type. The other person was a woman, dressed in the outfit of a European tribal barbarian. She had a knife belted to her waist and her face and hair were filthy. She looked around her with hostile, glaring eyes. When she noticed Staefler, she snarled at him. He shrugged. The cave man was sitting on the floor, grunting and holding a tree limb that he probably used as a club. Staefler looked down at himself curiously, realizing that he was dressed in his uniform, but it was dry and clean, in perfect condition, something it hadn't been even before he had left the LST, and definitely wasn't after the shell exploded. He didn't have his rifle, though.

The black creature left him in the room with the cave man and the woman. There seemed to be some kind of mental control, because as much as Staefler wanted to examine his cell and his cell mates, he found he couldn't even stand up. Neither of the others were moving, either.

After a time—how long, he couldn't tell—the black creature came back and went to the cave man. He grasped the prehistoric

human by the arm. There was a snapping sound, and both beings disappeared. Some time later, minutes or hours or days, they returned. The cave man reappeared with his chest ripped open, part of one arm missing, and his head flattened on one side in an ugly and very final way. The black creature touched the cave man's chest. There was the same snapping sound, and the cave man was suddenly whole again, undamaged but unconscious. The black thing let him fall to the floor.

The female barbarian was next. Her face contorted in an expression of hatred and loathing, but her arms and legs were motionless; Staepler supposed that the black creature was preventing her from moving. They disappeared for some time, and when they came back the woman was dead, slashed and hacked by some seventh- or eighth-century enemy. The creature restored her as he had the cave man, and she fell to the floor unconscious, too.

Now it was Staepler's turn. He had no desire to go back and hit the beach again, only to be blown to bits a second time. He didn't know the creature's purpose, but whatever it was, Staepler had no motivation to co-operate. If he was supposed to be dead, he felt he may as well be dead. Hanging around in between, doing bloody encores for the entertainment of a sadistic monster, wasn't Staepler's idea of an afterlife. He really preferred just fading out.

His preferences didn't matter. "Who are you?" he asked. The answer came in his head, a thought projected by the creature. That in itself didn't surprise Staepler. "Aensa," was the black thing's reply. Staepler didn't know if that was the creature's name, its race, or its title. A moment later Staepler was back on the LST, reading the science fiction magazine, feeling sick all over again, but on top of it this time was the knowledge of what was coming. He was powerless to do anything about it. He went through every moment, every step, every ragged breath, every slow, wading, stumbling yard through the cold water to the beach. And it all felt the same, as though he were just a spectator. The shell exploded. Staepler died a second time.

The Aensa spoke to him. Staepler stared into the awful golden eyes of the creature. In his mind, the Aensa's words formed. Staepler realized that the Aensa had shown him his death scene for a purpose. "What happens?" said the Aensa.

"What happens what?" thought Staepler.

"You died differently. You had weapons. You had order and deployment and preparation. You had organization and warfare. These others"—the cave man and the barbarian woman—"fought

only for themselves. You fought for your people."

"Right, sure," said Staefler. "I'm civilized."

"Yes," said the Aensa. "How civilized?"

"How civilized? Compared to what?" Staefler dreaded looking into the golden eyes. He hated the feeling of the Aensa's mind searching his. He wanted to know what the Aensa was doing.

"You have been chosen," said the Aensa. "You will answer my question."

Staefler was beginning to understand, at least partially. The damned black thing was making a survey of human warfare, or human combat, or human murder, all the same thing. Why? Staefler could only assume that it wanted to know about human fighting because it wanted to be prepared.

Prepared for what? For fighting humans, most likely.

"Wonderful," thought Staefler. "Terrific. Me and that shaggy broad and Alley Oop are going to stand off an invasion from outer space. Not goddamn likely."

"Answer my question," said the Aensa.

"You want to know what we were fighting for?"

"No," said the ominous creature, "I don't care about the reasons. Tell me the methods and strategies."

"I don't know much. Eisenhower hasn't confided in me as much as you think, you know."

"Tell me."

"We got rifles. We got grenades. I got the entrenching tool. I got rations. That's it."

"Tell me. What killed you?"

"Artillery shell."

"Ships. Aircraft."

"Yes," said Staefler. "I don't know how to tell you. I can't give you specifications."

"Perhaps." Staefler knew that he would have to die a third time. He couldn't satisfy the creature. He would have to show it.

"It will be harder," said the Aensa. "It will be worse for you. You will not die. You will go on. You will show me everything you know. You will show me the navies. You will show me aircraft. You will show me land weapons and cannon and everything else you have seen and learned. They—" the Aensa made an image of the cave man and the woman "—are first beginnings. You are civilized, as you think of yourself. You are obstacle, hindrance, opponent, rival, enemy, contest, game, refreshment, prey. You must show me."

"Yes," said Staefler, "I will show you. You will see and learn."
"I will judge."

§ § §

The third assault on Utah Beach. Staefler in the LST again, reading, staring at the magazine. Sgt. Weinraub muttering to himself. Cold waves dashing icy water on them. The landing craft lurching ahead, shuddering to a stop. A kind of silence, a clanking of the ramp, and then Staefler was running toward the sand, screaming. He looked around him, getting a good view of the ships far behind him, the ships providing cover for the landing craft. He was giving the sinister Aensa all the information he could. Staefler looked up; there were planes in the air, some strafing, others flying reconnaissance. Staefler looked from one German gun emplacement to another. He noted them for the monster's benefit. He made mental pictures of the booby-trapped obstacles on the beach. He imagined one exploding, and precisely then one exploded. He experimented again: every time he pictured an obstacle exploding, it did. The Aensa was letting him direct this fantasy recreation of the battle.

"I see," said the black creature. "Go on. Everything. I must see everything."

Staefler fell down and covered his head for a moment. He had not been hit. He wasn't going to die. He had proven something to the Aensa; he had demonstrated his usefulness in his first and second deaths, and now he was performing his appointed mission. Staefler looked up. He pictured artillery which was lobbing exploding star-bursts of shrapnel into the frantically scrabbling landing troops. He pictured tanks. He imagined American and British tanks on the beach. There hadn't been any when he had hit the beach, but the Aensa wanted to learn everything about the modern human style of warfare. So Staefler pictured tanks. He conjured up a German Tiger tank. There was a brief battle, and the Allied tanks turned the German tank into flaming wreckage.

Staefler pictured men with flame-throwers and satchel charges. Machine guns. Mortars and rifle-grenades. Staefler went through every conventional weapon he knew about. "Good," said the Aensa.

Staefler called up fire bombs. Fire exploded around him on the beach, but Staefler felt nothing. The black creature with the terrifying golden eyes was protecting Staefler from his own mental theater. He remembered submarines and torpedoes. A couple of

ships behind him thundered into geysers of fire and steel and water. "Yes," said the monster.

"Enough?" asked Staefler.

"Enough only when you have shown me everything."

"I am afraid," said Staefler.

"Do not be afraid. You are protected. Fear only failure, for I can hurt you."

"Yes, I know," said Staefler. He really *was* afraid.

"Then show me."

Staefler had read of the atomic bomb. In 1944, the power of the atom had been described in popular articles and books. The actual development of the bomb was a secret project, of course, but anyone who had been paying attention knew that the potential existed. Staefler imagined what he thought would be the effect of an atomic bomb on the beach. It was far short of the real thing, but the Aensa was startled. "I did not anticipate," it said. That made Staefler feel a little better.

"Don't punish me," said Staefler. "Don't hurt me for this."

"I will not. I must see everything. Is this all?"

"No," said Staefler.

Men ran up the beach from the water, protected from the German defenses by individual force fields. The force field projectors were small units worn on the webbed belt around each man's waist.

"You did not have one," said the Aensa.

"I was not worth it," said Staefler. "I am not important."

"Show me everything."

The Germans attacked with a blinding white beam that melted everything it touched into a bubbling, thick, molten pool. The D-Day invaders defended themselves with a green translucent bubble. "What is that?" asked the Aensa.

"That's, uh, let's see, it's an electromagnetic radio polarized multi-ion static field," said Staefler.

"I do not understand."

"I'm sorry. I don't know how it works. We just use it."

"Continue." The creature sounded just a little hesitant. "Show me everything."

Staefler showed the Aensa a temporal warp ray projector. He showed it a sonic protoplasm bomb that exploded the cell walls in every organism within range. He showed it a matter-conversion projectile. He showed it a homing mind-destroying aerosol that caused the victims to take their own lives. He showed it a weapon

that made small areas of the earth's crust permeable to matter, so that whatever passed over the areas fell down into the fiery core of the planet itself. "Yes," said the Aensa. It sounded definitely concerned. Staefler continued with an inspiration. He pictured a fleet of interplanetary rockets carrying on the war across the solar system. "I saw none of that before," objected the black creature.

"I thought you only wanted to see the conventional weapons," said Staefler. "I will show you how the *real* war is being fought. This is only a minor skirmish." He invented photon rays, and X-ray death curtains, and space-time torpedoes that blasted their targets back billions of years, and vast lenses on the Moon that focused the heat energy of the sun on objectives anywhere on Earth. Staefler used every crazy weapon and device he had ever read about since he had discovered science fiction ten years before the start of World War II. Then he made up some of his own. Hour after hour went by, and Staefler threw new and more staggering implements of destruction into the struggle for the Normandy beachhead. After a while the Aensa's comments ceased; Staefler hardly noticed. He kept going, making up gravity bombs and vacuum projectors and entity solvents and temporal paradox disruptors.

"Enough," said the monster in a weak mental projection.

Staefler didn't want to stop. He created a network of Interstellar Allies to come to the aid of occupied France.

"Enough."

Staefler was about to implement an anti-personnel delusion rifle, and then a stellar point-source beam that could remove a tiny piece of any nearby star and materialize it wherever it was needed (inside the skull of the enemy's emperor, or the enemy's flagship, or the enemy's Betty Grable, or . . .).

But the golden-eyed Aensa, the malignant black creature, the cold alien thing that had been researching the overthrow of human life on this small world, had seen what it had needed to see. It had seen quite enough.

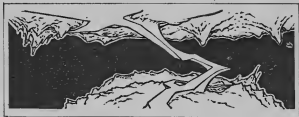
The Aensa did not say farewell to Staefler. The creature made its decision and abandoned Earth to its genocidal inhabitants, planning to come back in fifty or one hundred thousand years, when they had neutron-torpedoed themselves into oblivion. With the motion of someone scraping an offensive substance from his hand, the Aensa flung the cave man into his proper era, and the barbarian woman into her barbaric age, and Staefler back to

Utah Beach, for a fourth and final time.

Staefler didn't hear the shell burst, but it dismembered his physical body and scattered the essential life-force. His mind had a tiny instant before it flickered out, before it faded from gray to black forever. He thought one thing. "We won," he thought.

Lt. Marquand was grim that night. When the evening lull set in, he thought about the men in his command who had died in the battle that day. So many men, so many hundreds, thousands of men, all dead now. And what for? Lt. Marquand looked around, but he saw nothing. It was dark, and no one was moving. He heard small sounds, the scraping, gritty sound of sand, the clicking of steel against steel, the breathing and wheezing and groaning of men. Why were so many wounded, so many killed? For a few hundred feet of beach, that's why.

He shook his head, trying to dislodge the doubt. No, he realized, the men who had died, men like Staefler, they had died for greater things than just the beach. What these greater things could be, Lt. Marquand could only pretend to imagine.



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THE VOYAGE OF THE BAGEL

by Martin Gardner

The basic theorem upon which this is based was proposed by the late Canadian mathematician Leo Moser at a cocktail party. The counter-example was thereupon put forth by his brother, Willy Moser. Mr. Gardner wishes to thank Ronald L. Graham for suggesting this as a suitable puzzle.

The *Bagel*, a huge spaceship shaped like a torus and rotating to provide artificial gravity, has just begun acceleration toward the center of the Milky Way with the mission to determine if the galactic center is a black or a white hole. The crew consists of five hundred men and women; the time is the middle of the twenty-first century.

Now that the initial jubilation over the start of the voyage has settled down, two mathematical physicists, Leo and Ling, are having supper. Leo is doodling on his napkin. Suddenly he bangs his fist on the table.

"By Asimov, I've got it!" he says. "While everyone was getting introduced to each other in the last few weeks, the number of persons who have shaken hands an odd number of times is even."

"That's ridiculous," says Ling.

"No," says Leo. "It's a perfectly general theorem. In any group of people the number of them who have shaken hands an odd number of times, with members of that same group, is even."

Can you prove Leo's theorem? An answer may be found on page 106.



PIÈCE DE RÉSISTANCE

by Jesse Bone



The author was born in Tacoma, Washington, in 1916. A Doctor of Veterinary Medicine, he is Professor of that subject at Oregon State University. In addition to writing textbooks and editing Modern Veterinary Practice, Dr. Bone has been writing SF since 1956.

Here, let me brush you off. This dust sticks like glue. It's a miracle you weren't killed, but she was too frightened to stop. Didn't anyone tell you a basilisk was dangerous? What are you doing here, anyway? You oughta be back at Base where it's safe.

Oh—I'm sorry, sir. Welcome to Zetah. I didn't know you were the new Governor. I thought you were another of those Earth-type inspectors who pop in now and then. We don't expect top brass out here, and you didn't bring a staff. Governor Claiborne never travelled without a couple of secretaries and a trooper or two.

I guess it takes all kinds, Governor. And you're right about the briefing manual. You can't learn much from it. I suppose if you've never seen a basilisk you can't be expected to know how fast they can move. They're not like Earth animals. They don't believe in the superiority of man.

Look at that cow over there by the chute, the one the men are unshackling. You wouldn't think anything that ugly would have a brain, would you? But she's got one and it's bigger than ours. The big brains at Base call them centauroids, although I'm damned if I can see where they look like centaurs, unless you stretch the image all out of shape. Sure they have six limbs and the rear four have something like hoofs, and the front two end in something like hands, but that's where the resemblance ends. Note those jaws and that mouthful of teeth. She's an obligate carnivore, and those teeth of hers can shear a man's leg off. No—don't look at her eyes! She can steer you right into those teeth if she gets a fix on you. That's why they're called basilisks.

Yes, sir, that's a cow. You can tell from the abdominal pouch and the small tusks. A bull's half again as big, and his tusks are as long as my forearm, and he doesn't have a pouch. You're right, sir. She does sound like a leaky steampipe—funny—I never thought of that. Hey! There she goes!

They sure can! They run like scalded cats. An adult cow can get up to 90 k.p.h. when she's in a hurry, and that girl's in a screaming rush. You wouldn't think anything with legs could travel so fast. They use the forelimbs for propulsion when they're really in a hurry. Most of the time they use just the last four. You'll have to come down to the lab. We have some stop motion studies Winslow made last year. The leg action in full flight is the damndest thing you ever saw. We have their slow gaits worked out, but high speed is impossible to describe. One loses track of what leg is doing what.

So you noticed the odor? Did it bother you? No? Well, you're one

of the unusual ones. The Project shrink, George Reifenschneider, says it's a defense mechanism, but I sure as hell don't know what it's supposed to defend against. There's nothing on this world except us that's one tenth their size, and no native life has anything near their natural armament or brains. Until we came, the basilisks didn't have an enemy in the world except maybe a few parasites and a virus or two.

✓No sir, I'm not one of the brains of the Project. They're back at the Base. I'm the local supervisor; the guy who gets his hands dirty. The only degree I've got, beyond a BA in Agriculture, is from the school of experience. I ramrodded a cattle ranch in Wyoming before I came here, and I've been running this spread ever since it was established. I know ranching, and I expect that's why Governor Claiborne put me in this job.

Well—thank you sir. I'm sorry you got knocked down, but you've gotta watch them. We're trying to breed a more easy-going type, but we haven't had too much luck so far. They're ugly, suspicious, and antisocial; but we keep trying. We have to, if we're going to avoid things like that mess at Station Two.

What do I think of Station Two? Well—no one's asked me. I'm not supposed to think, but if you want my opinion, I think Harris asked for it. I think he committed suicide. Nobody walks into a nursing female's area and expects to come out alive. Nursing's a drain on them and they're hungry. It's like dangling a chocolate bar in front of a starving kid.

And then that cleanout order from Base really loused things up. It was a knee-jerk reaction to Harris' death; but it left half the Station worrying about what would happen when the local basilisks were gone, and the other half went ape over unrestricted hunting. Naturally the whole operation went to pot. You can't run a hatchery with a crew like that. So they didn't watch the litter, they didn't vaccinate, they didn't feed properly or check the humidity, and four hundred thousand chicks went down the drain and our entire program came to a screeching halt. That foulup set us back six months.

Yes sir, we do better now. We've got the feed problem solved, and we've worked out a method of keeping them quiet during the nursing period. Sight and smell trigger their reactions, so we keep them isolated. They're nearly blind during rut; and if we keep them in closed nest boxes where they can't see each other—and filter the air—we can house as many as the Station can hold. We can hold about a hundred at the Station. That's all the re-

search staff can handle.

That's right, they're solitary except at rutting season. That's why the Project Area is so large. Ordinarily a basilisk won't come closer than two hundred meters to another one, except to protect their territory. The only other exceptions are when a female's nursing or when she's in season. She's the one who makes the advances. The males just kill each other or avoid each other, depending on the situation. But adult males don't deliberately attack each other unless their territory's invaded.

No sir—the pattern's not really weird. It's a lot like the habits of terrestrial elk, except the bulls don't keep harems. A bull may have more than one cow during rut; but he has them successively, not concurrently.

No sir, they're not exactly mammals. They're more like a cross between a monotreme and a marsupial. The female lays a single egg about six inches in diameter. She incubates this in an abdominal pouch. When the egg hatches, the young basilisk finds a milk duct on the inside of the pouch and attaches to it for about half a year. By then the calf is big enough to forage for itself and the cow removes it from the pouch and casts it out. The calf runs off and won't come near another basilisk until puberty when its glands take over. If it's a cow, it finds a bull and they pair long enough to breed, after which they separate again. If it's a bull, it stakes out a territory when it gets big enough and fights off other bulls to hold it. Until it gets big and tough a bull calf is hassled a lot by adult bulls. But the adults are big, fat and slow, and the youngsters are lean and quick. Enough of them survive to keep the race supplied with breeding stock. It's hard on the bull calves, but the tough ones survive. The brains at Base think that is one of the reasons why the basilisks remain solitary—a natural tendency enforced by breeding patterns.

That's right, sir. We try not to disturb the pattern on most of the Project land. We protect this area. We keep a census of the Project and we don't let the adult population drop. There just might be a critical number. We don't know about that yet.

It's not easy to explain, sir. There's always an unbalanced sex ratio. It goes back before birth. The primary sex ratio in the egg is two females to one male. In the natural state this drops to about one to three by puberty and can get as low as one to twelve among adults without hurting production. Usually it's about one bull to four cows.

No sir, the present system wouldn't be bad except for poachers.

You can't cover a hundred kilometer square very easily, although we try. The guards have orders to arrest trespassers and to shoot those who try to run, but how can you protect against some guy in a flitter who comes in low under the screen, kills a male or female in one of the river nests, and flits out again? We used to chalk it off as natural losses until we started implanting electronic monitors in the ones we caught. That's when we found out about the poachers. We caught a few in the act at first, but they're onto us now, and many get away. They're a bunch of murderers; too goddamn lazy or cowardly to try the wild areas. They kill for no good reason; a few steaks, a set of trophy tusks, or just the fun of killing something that's bigger and tougher than they are. Hell, sir, if the odds were halfway even, a basilisk would win every time. But the poachers shoot from the air, and the poor beast doesn't have a chance.

They cut off the head, pull the backstrap, and get the hell out before we can react; and by the time our monitors tell us to get up there because the vital signs are absent, the carcass is crawling with stink bugs unless a calf or a cow has beaten the bugs to it. In either event, the carcass is useless for anything except evidence of poaching. None of us on the Project like poachers, and we have good reason. A hunting party can louse up an entire program. Let me tell you what happened after that trouble at Station Two. We had to send nearly half of our security force up there to help maintain order, and the word got out. It wasn't a week before we were hit with the biggest hunting parties in Project history. They virtually wiped out Area C where we were breeding a strain that had tendencies toward compatibility. Most of five years' work went down the drain. That's why we have guards. This place would be overrun with poachers if there was no security. We could be hunted to extinction; and if the Project goes, the whole colony could collapse.

No sir, I'm not exaggerating, and I'm not an alarmist. This is the only place inside our perimeter that has a precolonial population of basilisks.

Sure, there's plenty of wild area outside flitter range where basilisks are plentiful, but except for the Project you can draw a five hundred kilometer circle around Base and not find anything worth hunting. We've been here ten years, and in that time we've hunted the area inside the perimeter so heavily that one can't find enough survivors to make a hunt profitable except in Project territory. Basilisks are intelligent; and they don't like to be shot,

so they hide their nests from aerial observation, and a man's a fool to try to hunt them on foot.

The net result is that the Project would be a happy hunting ground if it wasn't protected. Sure, it's not too hard to protect, but it's still a big area. The basilisks stay here because the food's plentiful and because we protect them. They're smart enough to figure that their chances are better here than anywhere else inside the perimeter. It's only occasionally that a hunter or a party gets in, and many of them don't make it out again.

But about the colony collapsing, I wasn't kidding. Without the Project we'd lose hope and lose momentum. The quotas would not be met and the BEC might figure we weren't worth the cost in logistic support, which would mean we'd either be evacuated or abandoned.

Have you ever seen what happens to an abandoned colony, sir? Those Earth-side chairbornes don't give a damn about us grubbies sweating it out here on Zetah. All the Bureau of Extraterrestrial Colonization cares about is the bottom line. The colony thrives or it's aborted. It's as simple as that. After all, there are plenty of planets and plenty of colonists. Right now we're holding a balance. No one's happy, but we function. The Project is our hope of relief, and so long as we have hope we'll continue.

Worth the cost? Sir—you're joking! It's worth any cost.

Oh sure—I know the objections, but the basilisks would kill us just as quickly as we kill them—and for the same reason.

I know they're intelligent. Actually, I think they're descendants of the survivors of the atomic holocaust that wiped out the planet a few millennia ago. Consider the implications: They are the only large terrestrial animal on this world except us. All the rest are swimmers, burrowers, crawlers, and cave dwellers. Look at their front legs: They're adapted for grasping, they have binocular vision, they're potential tool users. They could communicate verbally with each other if they stopped being solitary brutes. Their brains have speech centers, and they have big brains. And if you need any more evidence, there are ruins of a civilization down on the equator that'll make your eyes pop. So will the scintillometer readings.

Ten thousand years ago the basilisks probably had a civilization as good as ours, one that ruled this world. Even today their descendants dominate the planet. Sure—we control our perimeter, but it's hardly more than a pimple on Zetah's face. But in the long ago war they either had better weapons or were more deter-

mined. Anyway they did a better job of destroying their civilization than we did ours. And this solitary life of theirs possibly arose from ochlophobia brought on by mass destruction or maybe because there wasn't much to eat and they had to separate to remain alive. We can relate to that sort of history.

See that group of buildings over there, sir? That's our next stop. That is the heart of the Project. That's Headquarters. It has to be big, since we capture every pregnant cow we can get our hands on and hold them until their calves are cast. Then we turn the females loose, braincheck the calves, save the useful ones, cull the excess, and liberate the rest.

Yes, that's true, but the bulls would do it if we didn't. We find about one calf in twenty that has gregarious traits. We keep these and introduce them to each other. There's considerable mortality, of course, but the survivors work out a peck order. They learn to tolerate each other after a fashion. Complete tolerance is our ultimate goal.

No sir, it's not hard to move them around. They're terrified of fire. We use solidographs of forest fires with sound and smell effects. It's hard work handling the projectors, but it gets results. We don't use the system except just after breeding season when we bring the females up here to hatch their eggs and gestate.

Feed? Why chickens from Station Two, of course. What else? After all, basilisks are obligate carnivores. Maybe they got that way from their war. We can relate to that, but I'm not telling you anything new. And speaking of feed, sir, it's lunchtime. Would you care to eat with us?

Ah—here we are. The head table's for guests. Cook likes us to be on time. She has a hard enough job feeding a bunch of bellyachers like the Headquarters crew, without having us come at odd hours.

Try the soup, sir. It's pure meat stock; rabbit, I think, from the look of it. I'll admit it isn't nearly as good as beef, but this isn't Earth. About the only thing we can ship on long trips are the small animals; the big ones don't survive, and so far we haven't managed to keep fertile ova alive over a stellar jump. So what we have are fowl, rabbits, guinea pigs, dogs, and cats. And rodents and fowl are poor fodder for chronic steak lovers. Not a bit of red meat in the lot. We tried dog once; it didn't work. Too many emotional hangups. Someday, maybe, we'll be able to ship larger domestic animals, but until we can, we have to live on what we can bring with us and what we can develop locally. Nine times

out of ten local sources don't work. Either the taste is terrible or something is biochemically wrong, like those D-amine groups on Rosso that poisoned the whole colony.

Ah—I guess word got out that you were here! I hoped it would. Cook's gone all out for you. Here—try this—

I'm not surprised you like it. I've never met a person who didn't. I remember Mrs. Claiborne. She was a real lady; never touched anything except chicken breast and goose liver. She just couldn't stop once she tasted it. And if you think cutlets are delicious you should try steak.

What is it? Why, basilisk, of course. One of the calves that couldn't meet the competition. We don't waste them.

If you don't want your helping, sir, I'm sure someone will take it. In fact, I will.

Horrible? Not half as horrible as a steady diet of fowl and rodents. After six months of that fodder, you'll think differently. You'll hate the sight and smell of birds and bunnies. You'll dream of pork, beef, and lamb; bacon, ham, roasts, chops, and steak. You'll wake up with the memory in your tastebuds and cry like a baby when you see the bunnyburger breakfast patties. You'll remember this meal, sir; and you'll understand why we're sweating out this Project. You'll remember what they told you back on Earth about those colonies that collapsed and went cannibal—

You see, sir, we didn't really know what the Last War did to us until we went into Space. On Earth we adjusted the ecology to serve our ends, but on colony worlds we can't do that. Here, we can't forget what we are. Here's where it really hits home.

Sure, we didn't cause the mutation. Our warring ancestors did that with their nukes, but we're the ones who have to live with it.

Of course I worry about it, sir. But don't get me wrong. I don't worry about eating them, even though I can't help feeling sorry for a race that's in a worse bind than we are. They've adjusted to their ecology and manage to make do. But they must get as tired of their diet as we get of ours, and they look at us as we look at them. I can't help thinking about those nests along the riverbank surrounded by colonies of burrowers and swimmers who wait to be eaten when their masters are hungry. It doesn't take too much imagination to think what those basilisks could do if they went beyond toleration and actually worked together toward a common goal. If one of them can control whole colonies of lesser creatures, what could a dozen—or a hundred—do? I wonder—and worry—but I suppose it's a calculated risk we have to take.

A CHOICE OF WEAPONS

by Michael Tennenbaum

The author tells us that he is a writer and film teacher in New York City, a resident of Brooklyn, and an avid collector of all things trivial. He also expresses concern that his introduction might exceed the length of this—ah—thing, which certainly appears to be the horridest pun yet.



The lecture began seriously enough.

"Of course, the system was not always crime-free. Near the end of the 22nd Century, roving gangs of criminals made interspace travel quite dangerous. Historians are still fascinated with the ritualistic aspects of these gang wars.

"I am reminded of the story of the maimed Taurog who, while awaiting shipment of replacement limbs, was visited by the Clemmian who had wounded him (as was the custom). The Clemmians, you will recall, were fierce traditionalists, bound by the morals and methods of their ancestors. Their weaponry was, in fact, so archaic that it was a wonder to all that they were as successful as they had been.

"It was this point that bothered the Taurog most of all. After some minutes of idle small talk, all pretense of pride was dropped and the question that had hung in the air like a lead cloud was finally asked.

" 'What,' queried the Taurog, 'was that laser you sawed me with last night?'

"The Clemmian just smiled. 'That was no laser,' he replied. 'That was my knife.' "



POLLY PLUS
by Randall Garrett



Mr. Garrett tells us that he is neither as young as Isaac Asimov nor as old as Harlan Ellison, but somewhere between the two. He wrote his first science fiction story when he was 14, and it was published in the old Astounding Science-Fiction in 1944, after John W. Campbell had sat on it for years. By that time, the author was in the United States Marine Corps.

By courtesy of the GI Bill, the author majored in chemistry, with minors in physics and math, at Texas Tech. After working in several industrial laboratories, he decided he'd get farther by writing. If dress suits for dinosaurs were a dime a dozen, he warns us, a BS in chemistry would buy a bow tie for a bumblebee. Like the Good Doctor, he would rather write about science than do it.

It wasn't the first clue I had, but it was the incident of the parrot that first got me to really thinking about Willy.

Everyone always asks me about Dawn Kelley as soon as they find out that I am the Janet Sadler mentioned in her best-selling autobiography. I can understand that; as her grade-school teacher, I am presumed to be an extraordinary woman myself because I helped to mold the childhood of a *truly* extraordinary woman.

Dawn Kelley has won three Oscars for the only three pictures she has appeared in, and for two others she directed. She had earned doctorates in medicine, law, and physics; and has made widely-acclaimed contributions to all three fields. Her television program has been in the top ten of the ratings for the past seven years. Everyone who knows her loves her, and she still looks a beautiful twenty-five, although she is only fifteen years younger than I, and I am over seventy.

Yes, Dawn Kelley is a remarkable woman, but everyone has read and heard about her for years. Instead of re-hashing old material, I would like to tell you about an even more remarkable person of whom you have never heard.

As I said, it was the parrot that really got me to thinking, but there were clues before that.

I was in my mid-twenties at the time; I'd only had my teaching certificate three years, and I was still naïve enough to think that four years of college and a year of graduate work had taught me all I needed to know about teaching. I was shy, I know, and I covered that tendency with an over-precise pedantry and an avoidance of emotional involvement with my students. I conceived of myself as a lofty being who knew everything—at least, everything that a child needed to know—and whose job it was to pour as much of that knowledge into childish minds as those receptacles would hold. I was, I fear, a rather stuffy prig.

It was Willy who gave me my first real comeuppance, but the fault was my own, not his. I had always disliked nicknames and diminutives—I still do, but I'm a great deal more tolerant now. When, on Willy's first day in my fifth-grade class, I asked each child to stand and tell me his or her name, Willy stood and said: "Willy Taylor."

"William Taylor," I said, by way of correction. Like a damn fool, I hadn't looked over the prepared roster yet. I had already corrected "Susie" to "Susan" and "Bobby" to "Robert" without repercussions, and expected none now.

"No, ma'am," he said with precision. "Willy. Doubleyou, eye, ell, ell, wye. Willy."

"'Willy,'" I replied with equal precision, "is a diminutive for 'William'."

"Yes, ma'am, sometimes," he said agreeably, "but not this time. Willy's my real name. It's German. You've heard of Willy Brandt and Willy Ley."

I had, of course. I was caught, and I knew it. I should have had sense enough to drop it right there, but my mouth was moving before I could stop it. "Are you German?"

Now what difference would that make? I had a David who was not Hebrew, a Marguerite who was not French, and a Paula who was not Italian; I hadn't carped at those. Because of my shyness, I was suddenly on the defensive.

"No, ma'am." Still polite. "But my name is."

By then, I had control. "I see. Thank you, Willy. You may sit down."

He did, and that was the end of it. But I remember it.

I sensed from the beginning that Willy was an intelligent child. His intelligence quotient, according to the tests, was 136; bright, but hardly brilliant. The transfer record from his previous school showed a nice B+ average. But almost from the very first I had

the feeling that he was holding himself back, that he was trying to hide his real abilities. That sort of behavior is not as rare as you might think; the merely bright children show it in school and get themselves thoroughly hated by their duller classmates, while the truly brilliant child is wise enough not to be that offensive.

But Willy did the same thing in sports, which was overdoing it. At softball, touch football, volleyball, and the various track sports that nine- and ten-year-olds can play, he never ranked higher than second best, and never lower than fourth. He was trying to keep his B+ average.

Now that, I thought, is ridiculous. A boy might want to keep his mind under cover—no one likes being called "teacher's pet" or "bigdome"—but why do so at sports, where excellence is approved of, lauded, and looked up to by faculty and students alike?

I remember the basketball especially. You see, I lived right across the alley from the Taylors, and I could see the back yard of their house from my second-floor apartment window. His father had set up a basketball hoop on the garage wall, and the boy often went out there after school to practice.

No. Not really to practice. To have fun.

Do you remember how much fun it was to skip stones across a pond? Or to throw snowballs against the side of a house, just to watch them splash? You never missed the pond or the house, did you?

Willy had fun throwing at the hoop, always on the move. Underhand, overhand, one-handed, two-handed, or over his head, facing away from the hoop, it didn't matter. He never missed. Never.

Except when schoolmates came by to play, or when he was playing at school. Then he became merely very good. But not exceptional.

We have a term for that sort of thing in the teaching profession: underachievement. I resolved to speak to his father about it.

I never got around to it, of course. Mr. Taylor never came to PTA meetings, and, somehow, I never found any excuse for asking him to see me. It's hard to do that when a boy is, actually and really, doing very well in school. If he'd ever got in a fight—

I often daydreamed that Orville Goldman, a tease and semi-bully, would go too far with Willy some day, but he never did.

If Willy would only get caught smoking a cigarette or drinking a beer or—

But no.

Damn it, if he would at least tease Paula, or react to the way she teased him. She discovered a series of rhymes which tickled her not-too-bright little mind, a chant that went "Silly Willy, full of chili, has a face like a water-lily!" He responded by helping her with her math lessons, and the chant was dead within three days. And Paula's arithmetic improved.

And then came the parrot incident.

We had a "nature study" program (call it "biology," and some clot-headed parent will think you're teaching sex) at Kilgore School. A part of that program consisted of teaching the children how to feed and care for small animals. Ann Simons, who was in charge of the program, was an absolute genius at it.

One thing that it is important for a human being to learn is that other people hurt. One of the best ways, in my opinion, is to teach them that *all* animals feel pain. Small children are solip-sists at heart; they don't know that those people out there are pretty much like this person in here. Particularly, children are unaware that an adult can be hurt. An adult seems too big, too powerful, to suffer. It takes a child time to learn that an adult can be hurt, both physically and emotionally, by a child.

Ann's theory—and I think it a good one—is to show this with animals.

"A little rabbit may not be able to talk, and he can't learn the things you can learn; but he can feel pain just the way you do, so you must be very careful. It's easy to hurt him because he's so much smaller and you're so much stronger. And even though he's small, he can hurt you, too, if you hurt him or tease him. If you're ever unlucky enough to have a rabbit sink his teeth in you, you'll know what I mean. I hope that never happens, because if it does it means you were hurting or teasing the rabbit."

She had many kinds of birds and small beasts: rabbits, white rats, snakes, chickens, ducks, and the like. Plus a few exotics: a kinkajou, an ocelot, a boa constrictor, and a parrot.

Named Jeremiah.

Jeremiah was Ann's personal property and a personal friend, and she'd had him for years. She had originally named him Onan "because he spilled his seed upon the ground," but she changed his name when she brought the bird to school because some parent might catch on to the joke. (I later found that Ann had borrowed the gag from Dorothy Parker.)

One of the phrases the bird had learned was "Woe is me," so Ann renamed him Jeremiah.

Part of Ann's program was to allow certain very carefully selected children to "borrow" an animal and take it home for a weekend. (Some were not borrowable; the kinkajou, for instance. You wouldn't believe what a kinkajou can do to your home!) It was something like borrowing a book from the library; the child was supposed to learn from it, and had damn well better bring it back in good condition. Mostly, they did.

But, there again, one had to watch out for the parents.

A white rat, bred for thousands of generations in the laboratory, is about as harmless as an animal can get. But there were mamas and papas who were horrified at the very word "rat"—to say nothing of having one in their home. Believe me, Ann Simons had to be a top-flight diplomat. She felt obliged to teach the parents as well as their children.

Willy Taylor was very good with animals. Ann said that his father must have taught him how to handle them from the very beginning.

"How about his mother?" I asked.

"Didn't you know?" Ann looked a little sad. "Mrs. Taylor—well, the way Willy puts it is that she 'went to a better world' right after he was born."

At any rate, it was because of his way with animals that Ann made the decision she did.

Willy, you see, was particularly fond of Jeremiah, and the bird seemed fond of him. A big green parrot can be dangerous; that beak could take off the end of a child's finger if the bird put power in it. Jeremiah had no record of that sort of behavior, but Ann was reluctant to loan him out. She had never really put him on the "non-circulating" list, like the kinkajou or the ocelot, but she usually convinced a child that another animal would be more suitable. Somehow, she wasn't able to resist Willy; and one fine spring Friday afternoon, Willy, with his father's permission, took Jeremiah home for the weekend.

Saturday afternoon, I was sitting at home, near the living room window, reading a book on child psychology. (I forget the title and the name of the author, but I remember being convinced that the psychologist hadn't been anywhere near a living child for forty years.) I had opened the window to enjoy the cool westerly breeze and the fragrances it carried with it: the sweet scent of the blooming lemon bushes beneath my window; the tangy smell of cut grass; the mouth-watering aroma of Mrs. Jackson's homemade bread.

Once, as I glanced out, I noticed Willy in his back yard playing with Jeremiah. Their voices came clearly.

"Hello, Jeremiah, hello."

"Hello. Hello. Yawwwk! Hello."

The bird's wings had been clipped, and he had a leather collar around one leg, attached to a long leash, so it was perfectly safe to let him wander around on the fenced-in lawn of the back yard.

"Jeremiah! Yawwk! Silly bird! Silly bird! Yaawwk!"

Wishing I could go out and play on such an afternoon, I went back to my book. The parrot-boy talk went on, but I ignored it.

A chapter or so later, though, Willy's voice penetrated my block.

"Dad! How come Jeremiah can talk, but can't *really* talk?"

I looked out the window and listened carefully. The father's answer to a question like that would tell me a great deal about the man.

I couldn't see him; he was inside the house. But his low tenor voice carried well through the open window.

"You mean he can't carry on a conversation?"

"Yeah, that's right," Willy agreed.

"Well, Jeremiah's brain is something like a tape recorder that's attached to a simple computer. A tape recorder can talk, but it can't think. Jeremiah can't think, either, not like you and I can, but his little computer can make certain responses to certain input signals and come out with recorded sounds."

"Oh, I see. Yeah, that makes sense. Thanks, Dad."

"Any time."

"Yaawwk! What time is it? Eight bells and all's well!"

Remarkable! I found myself liking Mr. Taylor very much.

But I went back to my book.

It must have been well over an hour later that I heard the screaming.

I want to say here that I am fond of cats. I have always lived with at least one, and the sad part is that I have outlived so many of them. The one I had then—Tamantha, I believe it was—was curled up on my lap at the time. In general, cats are nice people.

But there are exceptions.

The big orange tom was one of them. Nobody knew who he belonged to; he'd hang around the neighborhood for a few days, then disappear for a while. He was feral, and he was mean. He only had three things on his mind, and the other two were food and fighting.

When I heard the screaming, I think I knew it was Orange Tom before I looked up.

I almost screamed, myself. All I saw was a flurry of fur and feathers.

What happened took place in far less time than it takes to tell it. The cat had evidently come over the fence and decided that Jeremiah was good for at least two of the things on his mind.

The screaming was from both of them. Jeremiah was fighting back, beak and claw. But he was no match for that big tom. Then Willy came slamming out of the back door, adding his scream to the others, and running straight toward the combat.

He handled it beautifully. If he had tried to kick the two apart, or, worse, pull them apart with his hands, there might have been far worse damage done. He didn't; instead, he came down solidly on Orange Tom's tail with his right foot. It is difficult to step on a cat's tail if he's wary, but Orange Tom was preoccupied.

Not for long. He let go of the bird and turned. As he was turning, Willy let up on the tail, drew back, and kicked.

It was lovely. He didn't kick the way you'd kick a football, with the toe. Even under pressure like that, he did not want to hurt the cat. His instep caught Orange Tom right under the belly, lifting him in a high arc that took him clear over the fence. He landed neatly, as cats do, and vanished in an orange streak.

But Jeremiah was an unmoving mop of green feathers.

By that time, Mr. Taylor had come out, less than a second after the boy. Willy knelt down by Jeremiah, not touching him.

"Dad! He's dead! That damn cat killed Jeremiah!"

I had never heard Willy swear before. Under the circumstances, I didn't blame him.

I didn't hear what Mr. Taylor said. His voice was too soft, too gentle to be intelligible at that distance.

During those several seconds, I had stood frozen at the window, not even realizing that I had unceremoniously dumped Tamantha off my lap when I stood up. She had leaped to the window sill and was looking out to see what all the fuss was about.

Then I realized something. I had an excuse to go over to the Taylor house! The fight wasn't exactly the one I had envisioned, but it was certainly school business, and I had been a witness.

I changed clothes quickly; shorts and halter are not for a teacher who is visiting a parent.

By the time I had gone down the block, around the end at Dillon Street, and back up to the Taylor House, ten minutes or so

had passed. I went up the walk to the porch and pushed the doorbell button.

The man who opened the door was tall, like his son, and had one of the strongest faces I have ever seen. He was not really handsome, but there was character there. Strength, compassion, and a touch of deep-seated sadness which even his smile did not erase.

"Yes?"

"I—I'm Janet Sadler. One of Willy's teachers." I suddenly felt very awkward and foolish. "I—uh—I live just across from your back yard. I saw—what happened."

"I see." His smile faded a little, but did not vanish. "Will you come in, Miss Sadler?"

By that time, Willy was at the door. He had a grin on his face of sheer happiness. I was momentarily shocked.

"He's all right, Miz Sadler! Jeremiah's all right! Dad fixed him!" He looked up at his father. "Dad, will you teach me how to fix things like that?"

"Certainly, Willy," Mr. Taylor said. He was still looking at me. "Jeremiah wasn't really hurt at all, Miss Sadler. He's fine. Mostly shock, I think. Not a scratch on him."

"My God!" I said. *Really?* It looked to me as though he'd been torn to bits."

"Come see," he said. "He's lost a few feathers and, for a while, his dignity, but he's in perfect health."

He led me into a pleasant living room. Jeremiah was preening himself on the crossbar of the wooden T-stand that was his perch. He looked great. I just stared.

"Say something, Jeremiah," Mr. Taylor said.

"Jeremiah! Yawwwk! Silly bird! Silly bird!"

I got over my shock. "Well, he certainly seems all right. I'm very glad. Mrs. Simons would have had a fit if something had happened to Jeremiah. Are you sure we shouldn't take him to a veterinarian?"

"We can if you want, but I don't think he'll find a thing wrong with the bird."

"I really think we should," I said.

And we did. There wasn't a thing the doctor could find wrong with Jeremiah.

As we were driving back, I realized that Willy had said nothing for a long time. I thought I knew why.

He was in the back seat with the parrot; I was in the front with

his father. "Willy," I said without looking at him, "I don't think we need to say anything to Mrs. Simons about this. Jeremiah wasn't hurt, and it wasn't your fault. But if we tell Mrs. Simons, it will make her worry and she'll be unhappy. Of course, if she asks either of us, we'll have to tell the truth, but I don't see why she should, do you?"

"No, ma'am. Thank you."

"That's very good of you, Miss Sadler," his father said. "I wouldn't like the boy to lose his borrowing privileges. And next time, there'll be no leaving an animal in the back yard unguarded, will there, son?"

"No, sir! I promise. Next time I need a drink of water, I'll bring whatever it is in with me."

"That's fine." He gave me a quick glance and then looked back out the windshield. "He'll keep his word."

"I know," I said.

It wasn't until he drove me up to the front door of my apartment building that I realized I hadn't said a word about Willy's underachievement. It was far too late then.

Twelve days later, on a Thursday, Ann Simons came into my classroom after the children had been dismissed for the day. She looked worried.

"Janet, are you particularly busy right now?"

"No," I told her, "I was just getting ready to go home."

"Have you got a few minutes? Jeremiah's behaving—well, *peculiarly*."

I know that one's heart does not literally leap into one's throat at a time like that, but it certainly feels like it.

I got up from my desk. "All the time in the world. What do you mean '*peculiarly*'? Is he sick?"

"Nnnno—not sick. Come along, I'd rather show you."

She led me into the nature study section, and I followed, worried. If there was something wrong with the bird, I'd have to tell her what had happened nearly two weeks before—and that would be embarrassing.

Jeremiah was sitting on his perch, looking jauntily around. He speared us with a bright eye.

"*Yawk! Good morning, Miz Simons!*"

Ann said, "What time is it?"

"*What time is it? Five of twelve. Yaawwwk! Lunchtime in five minutes. Be patient.*"

"Where does the kinkajou come from?"

"Where does the kinkajou come from? Does anybody know? Yawwk. I think it comes from South America, Miz Simons."

I wish I had a hologram of my face at that moment. Or, rather, a flat photo; there were no pocket holo cameras in those days.

Ann went over to the cage where Flower, the denatured skunk, was watching with evident interest. "Name this animal, Jeremiah."

Jeremiah eyed it carefully, looked around the room, then looked back at Flower. "*Skunk. Mephitis mephitis. A carnivorous mammal which lives mostly on other small mammals, birds' eggs, and insects. Yawwk.*"

I think I was actually frightened. My mouth felt dry.

Ann said, "Janet, you know the question everybody asks a parrot. Ask him."

It took me a moment to find my voice. I looked at the bird and said: "Polly wanna cracker?"

He looked at me speculatively. Momentarily the nictitating lid filmed his eye. Then, distinctively: "*Graham, fire, or Georgia?*"

I looked at Ann. Now I *knew* that I was frightened. "Ann, can that damned bird *think*?"

"*Think?*" said Jeremiah. "*Think, children, think! Yaawwwk!*"

"Let's go to the teacher's lounge," Ann said quietly. "There's still some coffee in the urn."

Neither of us said another word until we were seated in a couple of soft chairs with mugs of hot, black coffee in our hands. Then I said, "Well? *Does* he think?"

She frowned a little. "Well, yes. All animals do, to a limited degree. They have to reason, to make decisions. The chimpanzee experiment at the University of California at Santa Barbara showed that chimps can carry on a conversation—a real, if limited, conversation—even if they can't talk. They use plastic symbols instead of words, but they can communicate.

"And that's the difference, Janet. Jeremiah can't communicate with us."

"It certainly sounded like it to me," I said flatly.

She shook her head. "I don't think so. A bird just doesn't have the brain for that sort of thing. A bird's brain isn't connected up that way. Oh, they can communicate with each other. The best examples are in the crow family—ravens, jays, jackdaws, magpies—that bunch. The parrots are halfwits in comparison."

"That little chit-chat we were just having with Jeremiah didn't sound halfwitted to me," I said.

"Sound like it," Ann said. "That's the clue, you see. A parrot's brain can be compared to—"

"To a tape recorder connected to a computer," I said.

She tried to keep from looking surprised, and almost succeeded. "Yes, that's—that's very appropriate. Look; suppose you're an actor who wants to memorize a part in a play. You could read all the other parts into a tape recorder, leaving properly timed blanks for the part you were trying to memorize. Then you practice, and memorize your part. By the time you get through, it'll sound like you were having a conversation with your recorder.

"Now carry it one step further and connect in a computer that can recognize any of the lines you deliver, pick out the appropriate response from the tape, and play it back. Make up a sufficiently long list of statements and responses, and it will sound like a conversation, possibly a very sophisticated one."

"And that's all Jeremiah's doing?"

"I think so." She grinned oddly. "God, I *hope* so." She took a sip of her coffee. "So far, that's what it seems to be. Every one of the answers he gave was something he had heard in class—word for word."

"Even that part about the crackers?" I asked.

She chuckled. "No, I tried to teach him that one a year or so ago, but it didn't seem to take. He apparently dug it up out of his memory." She grew more serious.

"What makes that sort of thing sound so much like a conversation is that most conversations you hear *are* just that sort of thing. Somebody throws you a line, and you give them a stock answer without having to think.

" 'Good morning, Ann.' "

" 'Good morning, Janet.' "

" 'How are you this morning?' "

" 'Just fine. How are you?' "

" 'Just fine. Lovely weather, isn't it?' "

" 'Absolutely marvelous.' "

"Hell, Janet, you can program a computer for a lot more sophisticated dialogue than that. There's a program now that will do Rogerian psychotherapy, using just that sort of system. It's so spooky that it scares people. Of course, you have to communicate by typewriter, but it still seems as though the machine knows what it's talking about. The thing it can't do is ignore or comment on nonsense, the way a real psychotherapist would. If you type in, 'My head aches,' it will type back, 'Why do you think your head

aches?" But if you type in, 'My frammis pilks,' it will say, 'Why do you think your frammis pilks?' instead of saying, 'Your *what* does *what*?' the way a real person would do."

"Do you think Jeremiah could do that?" I asked.

She shook her head. "I don't think his internal circuits are set up for it. But I'm going to test that out. I'm going to take that bird home again, and I'm going to set up a testing program before I let him hear another word.

"I don't think he is any more a reasoning being than he was before. He isn't some strange super-parrot; he's got no more abilities than any other parrot. But he can certainly use them a damn sight more efficiently." She grinned at me suddenly. "I'm going to get the best tape recorder and the best movie camera, all the best equipment I can afford. If I don't get a doctorate out of this, I'll *eat* that bird."

I didn't tell her anything about what had happened to Jeremiah twelve days before, and I'm glad I didn't. She would have thought shock had something to do with it, and only God knows how many parrots would have had nervous breakdowns before she decided that line was a dead end.

Ann went to work on her project as though there were nothing in the world but her and that parrot. She didn't actually neglect the children, but they didn't get the extra attention she had given them before. She worked twice as hard, and I've never seen a tireder, happier woman.

It was late in May when the final incident occurred.

Little Paula ran across the street during recess to get a rolling ball. She ran between two parked cars, and the oncoming driver didn't see her until too late. It was almost a textbook case of that kind of accident. If the driver had been exceeding the twenty-five mile speed limit, Paula would have been killed instantly.

I didn't see it, thank Heaven; I was inside, grading papers. I heard the ambulance, but I didn't pay much attention; it was a block away, on the other side of the school grounds. The first I heard about it was when Willy came bursting into the room. There were tears in his eyes.

"Miz Sadler! Miz Sadler! Polly's hurt!"

"Paula," I corrected him automatically. "Calm down. What happened?"

He didn't calm down. "She got hit by a car! Her head's all smashed in and some of her bones are broken and she's bleeding and they won't let me fix her! They wouldn't let me anywhere

near her! I can do it, 'cause my dad showed me how, but they wouldn't let me near her! Now they're taking her to the hospital and I asked could I come and see her and they said no I couldn't because I'm too little!" He stopped for breath.

"That's right," I said, "they don't let children into the emergency ward." I was more shaken than I let on, but I thought that by remaining calm myself, I could calm the boy down.

It was a mistake.

"You don't care either! You don't understand! Those doctors can't help you! Polly's gonna *die* if I don't fix her! you *hear* me? She's gonna die!"

"Willy! Calm down!"

"Please Miz Sadler! *Please* take me to the hospital! If I'm with a grownup, they'll let me in!"

I shook my head. "No, they won't, Willy. They wouldn't even let me in. Even her parents couldn't see her until she's out of Emergency."

"Then the next time they see her, it'll be to identify her body." His voice and his manner had changed startlingly. He was suddenly very coldly angry. "She'll go from Emergency to the morgue. I'm glad my education on this snijort planet is nearly done." (That's as close as I can come to spelling the word he used.) "We're going to see Mother pretty soon."

I just gawped.

"Wait!" He felt in his pocket and came out with a small wad of dollar bills. "Yeah. I can make it." And he was gone.

I just sat there, not thinking. I didn't want to think. It's taken me nearly half a century to really think about it.

I think he took a taxi. I'm sure he got into the Emergency Room somehow, although nobody saw him. I'm sure because a miracle happened. Paula was back in school three days later.

A nurse who was a friend of mine said that the doctors reported that there was nothing wrong with Paula but shock, and they only kept her in the hospital for observation. But it was the doctors who were shocked. One minute, Paula was a smashed and dying thing. Then—something—happened.

The next minute, she was perfectly well.

They couldn't explain it, so they pretended, even to each other, that it hadn't happened. I can't explain it, either, but I think I know a great deal more about what happened than they did.

Mr. Taylor took Willy out of school the next day. The boy was having nervous trouble, emotional shock brought on by seeing the

accident, he said.

They moved out the day before Polly came back to school.

I never saw them again.

Ann Simons finally got her doctorate, but it was for another study. Jeremiah was unique, you see, and the experiment, as well documented as it was, was not reproducible. He was a better parrot, the best parrot he could be.

After all, when you fix something that's broken, you fix it so that it will operate at optimum, don't you?

I don't know why Paula Kelley changed her name to Dawn, but there are times when I wish it had been I, rather than she, who had been hit by the car. And there are other times when I wonder if Willy loved *me* enough to break his cover.



\$TAR WAR\$

Evil threatens a rebel uprising!

Well—the plot contains nothing surprising:

Let your lightsaber guide you,

The Force is behind you—

And ten million in post-merchandising.

—John M. Ford

Wolf Tracks



They've found wolf tracks
Down at the Aeronautics-
And-Space Museum.
Not once, three times.
And they're talking crazy.

First time, they let it go.
Just pranksters, they said,
And told the security cops,
You guys keep a sharp eye out.
Second time, they brought in
A German Shepherd.
He told them, That's wolf,
No doubt about it.

Now, they're talking crazy:
Burglars, plots & counter-plots;
Terrorists, hijackers, spies;
One guy says its lycanthropes.
They've bugged the place, and
Lay traps at night—those big,
Steel traps with all the teeth.
They've even hung some wolfbane.
And one CIA-type's got
A .45 with silver bullets.

Me, I think it's wolves, too.
Not sheep's-clothing wolves,
And not Russo-Sino wolves;
Not werewolves. Real wolves.
I think they come to see
The Apollo exhibits, just
Like everybody else does.



Lupine geologists, maybe,
Come to read the moon rocks.
Who could do it better?

Or some wolf-composer,
Seeking inspiration
For a new moon hymn.
Because, who loves the moon
More than a wolf does?

Could be there are wolves
On the moon, and these
Earth-wolves are looking
For some sign of Otherness
That's somehow a Sameness
—Just as we are looking.

Scientiest would say that's bunk.
There's no air on the moon,
Ergo: there are no wolves.
(On the other hand, I've seen
Those moonscapes on tv, and
That's wolf country, alright.)

Down at the A&S Museum,
Nobody says "wolf tracks."
They all call it "spoor,"
Even the security guards.
They've got the jargon pat.
Despite the head-scratching,
They're experts, all, down there.



But, last night, the wolves
Started howling, everywhere,
Howling the whole world over.

The tv commentators say
That wolf packs have been seen
Moving on the highways.

People are getting afraid.
But I've heard the howls,
And they're full of sorrow.

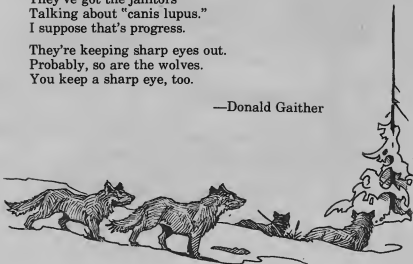
Maybe all the wolves want
Is some word about the moon.
After all, wolves have been
Moon watchers a long time.

Some people say that it's
Something much more sinister,
Nothing to do with the moon.

Meanwhile at the A&S,
They haven't figured out
Anything. But it's okay.
They've got the janitors
Talking about "canis lupus."
I suppose that's progress.

They're keeping sharp eyes out.
Probably, so are the wolves.
You keep a sharp eye, too.

—Donald Gaither

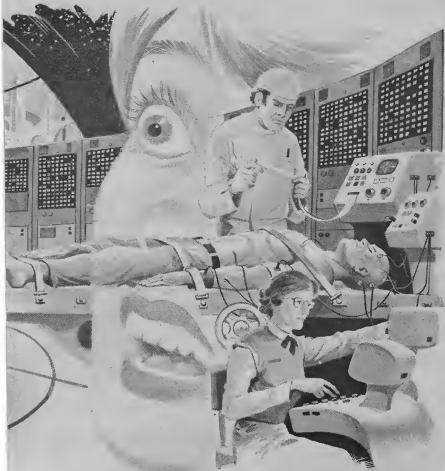


GUILT

by James Gunn



SCHOMBURG



Writing is perhaps hereditary with the author of this story; Mr. Gunn's grandfather, father, and three uncles were all in various parts of the printing and editing business. During his term as President of the Science Fiction Writers of America, he ran the organization with the same cool, elegant competence that seems to characterize everything he does. He teaches English at the University of Kansas, and has been selling SF for just over thirty years.

I.

All of us feel guilty. All of us have something to feel guilty about. The problem is that some of us don't feel guilty enough.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Judge Meredith Nelson scanned the verdict on his bench one last time. He always tried to give the citizen the benefit of every doubt. "It is better," Sir William Blackstone wrote, "that ten guilty persons escape than one innocent suffer."

But there was no scrap of uncertainty in front of him. Intent read too high; restraint, too low. Regretfully, though with a faint thrill of power that he always felt and always tried to repress, he pushed the button on his bench marked "Execute."

II.

Guilt is the special form of anxiety experienced by humans-in-society, the warning tension of life principles violated, of conditions of human social existence transgressed, of socio-spiritual reality ignored or affronted, of God alienated, of self being destroyed—Edward V. Stein.

Patricia Williams stopped with the spoonful of mock-turtle soup almost to her lips, like Galatea turned back to stone by an angry god. Then her hand began to shake. The soup trembled from her spoon, splashing on her white blouse in ugly dark blotches like old blood, marring the spotless tablecloth. Her face

was flushed. Shudders jarred her body.

Gary Crowder stared at the woman he loved. "Pat! What's the matter?"

The spoon dropped to the bowl. She let it go as if glad to be rid of the responsibility for holding it steady. "Nothing," she said.

In the elegant room at the top of the Harlem Hotel, with its understated color panels and its broad windows revealing the lights of the city slowly turning around them, the other diners stared at Patricia. Gary wanted to take her tender body in his arms, wanted to calm the panic of her heart, wanted to shelter her from the knowing looks of those who were her inferiors in every way. But that would only call more attention to her condition.

"Are you having an attack?" he asked.

But he knew what the matter was. The others in the room knew what it was, too, and he could feel them draw back, as if Patricia had been stricken by the Plague and that by distancing themselves from her they could avoid contagion. But it was a blacker plague, a moral plague. In the great judicial buildings that towered near the foot of the island, Patricia had been found not guilty enough.

Resentment surged through Gary, despite a lifetime of suppression—resentment at a system that would inflict such agony on an innocent like Patricia. What criminal urges could she have? What acts of hers need be restrained?

Somehow the system had failed.

III.

A fundamental inequity in our system of justice is that the law-abiding must pay for the entire cost of the police and judicial system, as well as the punishment of the convicted. The ideal arrangement would be an automatic monitoring system and self-punishment—The 1996 Hearings on the Hardister Plan for Justice Reform.

Times had changed since Blackstone's day, Judge Nelson thought. Then the criminal was punishable only after he had committed a crime; even then his guilt had to be proved by the testimony of uncertain and unreliable witnesses, and in most cases some residue of doubt remained. No wonder Sir William had

been concerned about the miscarriage of justice. In his day—why, even as recently as the twentieth century—only one criminal in ten was ever caught and only one-tenth of those were ever brought to trial.

Today the city was free of crime. The potential criminal was detected before he had committed his criminal act, and his guilt was increased to the point where he could not do it.

His father should have lived to see this day, his big, hearty, successful father, who had been a policeman back in the days when there still had been a need for men to stop crime or arrest criminals, his father who had died in the street facing a mob who had been throwing bottles and stones.

Nelson could not imagine living in a city where footpads lurked in every dark corner, where harlots brazenly walked the streets, where rapists waited for decent women, where thieves looted homes at will, where swindlers misused positions of trust, where bands of juvenile muggers tormented the old and the weak.

His wife and daughter could walk anywhere in the city, even at night. It was a city without bars, and he would return to a home without locks.

Nelson pushed himself back from his bench and stood up. He felt pleased with himself, satisfied with his role in a world that handled antisocial problems so well.

IV.

If we are going to aim at the ideal system, we should try to detect the criminal before he commits his crime and stop him. We don't attempt anything like that now because we have no reliable means of detecting the intent to commit a crime and no effective means of stopping its commission. But it's our lack of ability rather than our ethics that holds us back—The 1996 Hearings on the Hardister Plan for Justice Reform.

Patricia was like a spastic, scarcely able to move without stumbling, but Gary helped her out of the sky-high restaurant, down the glass-enclosed elevator that Patricia had found so exciting on the way up, and into a taxi. All the way she had told him not to be angry, that what had happened was all right.

"I'm guilty," she kept saying. "I'm guilty."

But Gary knew it was only the guilt syndrome speaking. Every

school child knew how it worked. The pituitary was ordering her adrenals to pour adrenaline into her blood stream. The adrenaline was increasing her heart action. It was taking blood from the skin and rerouting it to the brain and the muscles. It was increasing the blood-sugar level. If she had been in the jungle, her body would be ready for fight or flight.

It was the guilt syndrome, a warning that every time she thought about committing a crime she would feel like this again.

Gary told the taxi Patricia's addresss, enunciating clearly so that there would be no mistake. He didn't dare get into the taxi himself because his anger was running too high.

What had happened to Patricia was all wrong. She was not the kind of person who would even consider committing a crime; she was too good, too innocent for that. Gary knew it. He also knew that if he entered the taxi his anger might be reported to the Department of Justice.

No one was sure where the readings were taken. Everything else was revealed about the system but that. Inevitably, then, suspicion fell on every enclosed space that might conceal an encephalograph, a sphygmomanometer, a polygraph, or any of the more advanced devices that singly or in combination detected and analyzed emotional and mental states.

Detection might lie anywhere, in subways, elevators (had it been a mistake to use the elevator down from the restaurant?), telephone booths, even hair dryers, circumsenses, or door knobs. All of them, or none. Perhaps it was all done by light or air; maybe it came out of the sky like the finger of God.

Whatever it was, he couldn't take the chance that he might be stopped before he could correct the injustice that had been done to the girl he wanted to marry, whom he wanted to make happy, whom he wanted to protect from fear and uncertainty.

The evening had started so hopefully. After dinner in the most expensive place he could afford he was going to tell her about his promotion to first supervisor. Then could come the proposal. And after that, he had day-dreamed, in his apartment or hers, the night-long ecstasy of excitation and fulfillment. She could no longer put him off—he did not resent it; it was by this he knew her innocence, her desirability—she would no longer have a reason.

He knew her well enough to be sure she was thinking about the same thing, though her dreams were spiced with the thrill of the forbidden.

Guilt is the most important problem in the evolution of culture—Sigmund Freud.

Judge Nelson was only an average-sized man, just about six feet tall. He was much smaller than his big, blueclad father had been, but there was scarcely room for him to stretch in the cubicle he occupied six hours a day, every other day. It was pleasant enough, with its soothing, color-varied walls, but not big. It was sufficient for the work he had to do; justice needed no larger sphere than this.

The little room held all he needed: a comfortable chair, the bench that gave him the readings from the computer when he pressed the button marked CASE, and the three buttons clustered beneath his right hand—EXECUTE, PROBATION, and DISMISS—that symbolized the discretionary part of his work.

For this he bore the title of "Judge." It was an honorable title, with a long and noble tradition, and he would do nothing to diminish it.

Actually, the only button on his bench that looked at all used—part of the white, incised lettering had been worn away—was the one marked "execute." That bothered him sometimes, but then he told himself that the computer put a case on a judge's docket only when it was ready for action. The system provided for human judgment; no case could be decided merely by machine response. Every few days a case would appear—almost as if to test the alertness of the judge—in which the readings seemed ambiguous or marginal. The probation button sent such cases back into memory for further investigation. Seldom was there the kind of clear error that called for dismissal.

But it had happened, and Nelson was determined to mete out justice. He remembered Reinhold Neibuhr's wisdom: "Man's capacity for justice makes democracy possible, but man's inclination to injustice makes democracy necessary."

Who knew what decisions were reached by the judges on the other shifts; some, even, who occupied this room, whose fingers rested upon these buttons? Certainly Nelson didn't know. He didn't want to know. From casual conversations in the judges' lounge, however, he had the feeling that he was more lenient—more careful was how he thought of it—than some others. Some, he thought, a bit scornfully and perhaps unkindly, were mere

VI.

How can we punish a person for what he has not done, some of you ask? The answer is simple: the prevention of crime is no more a punishment than the discipline of a child to prevent harm to himself or others is cruelty.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Gary looked toward the Tower of Justice, distant at the foot of the island but clearly visible against the night sky. It stabbed upward, tall, slender, bathed in white light from base to spire. Once he had thought it the symbol of justice untouched by human passions, above the petty concerns of mortals; clean, unsullied, humanity's finger straining like Adam's toward God. Now it seemed more like a straightened question mark, struggling to regain its crouch.

The Tower was a good ten kilometers away, and he had to traverse that distance all on foot. It would have been more sensible, he knew, to have gone home, to have slept his anger away, and to have set about correcting the injustice to Patricia tomorrow when he was calmer. But he didn't care. Perhaps tomorrow his courage would leak away. Tomorrow the Department of Justice might monitor his emotional condition and lay on him an inhibiting load of guilt. If he waited he might never act.

His sister Wylene, had she lived, would have been Patricia's age. He squared his shoulders, fanned the flames of his indignation, and set out down the island across territory he had seldom traveled by foot.

VII.

If we could know with absolute certainty that a person intends to commit a crime and will do it, given the opportunity, and if we could stop it, who among us would say, "First let him break the law, first let him steal or rape or murder, then we will punish him."? The person who would let the crime occur would be a monster.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Judge Nelson turned toward the door of his courtroom as his fourth-shift replacement entered. The man was dark, undersized, surly, and, as usual, ten minutes late. His name was Kassel, and Nelson knew no more about him. Nelson chose his friends as carefully as he performed his duties, and he had few friends in the Department of Justice. The work he did every other day was difficult enough; he wanted to leave it all in the courtroom.

His position carried significant prestige. Judges were supposed to be anonymous servants of justice, but family knew what he did, and friends. Nelson knew he was admired by some, respected by others, perhaps feared by a few. It was the work he had chosen, that he had been selected for, and he accepted it and everything that went along with it.

The biggest part of his job was the responsibility. Every working day he affected people's lives; he considered the evidence, reached a decision, adjusted someone's guilt to the proper level. It was a weight he bore reluctantly but well; someone had to do it, and Nelson did it better than anyone.

Now he allowed himself a rare comment on someone else's performance. "You're late," he said to Kassel as he passed the man in the doorway.

"No matter," Kassel said, glancing back under heavy eyebrows. "I'll catch up quick and then do all the cases you had left over from your shift."

Nelson feared that Kassel was one of the button-pushers. "Not if you're thorough," he said mildly.

"Don't tell me how to do my job, Nelson!" Kassel said. "If you badmouth me I'll see that you get taken care of." He threw himself into the padded chair behind the bench.

"I've had less antisocial cases than yours among those that appear on my bench," Nelson said. It was as much a departure from his judicial reserve as he could allow himself.

As he started down the hall toward the judges' lounge, Kassel shouted after him, "That's it, Nelson! I'll show you who's antisocial."

VIII.

The troubles from which the world suffers at present can, in my opinion, very largely be traced to the manifold attempts to deal with the inner sense of guiltiness, and therefore any contribution

that will illuminate this particular problem will be of the greatest value.—Ernest Jones.

At 110th Street, Gary decided to take a shortcut through Central Park. Once the decision would have been reckless, a bit later, foolhardy, and a few decades after that, suicidal. Now as he skirted Harlem Meer and The Loch he passed couples strolling hand-in-hand or arms about each other, old people on park benches talking about the past, joggers improving their physical condition; sportsmen tossing frisbees in the moonlight, wild animals ambling across the meadows between air-curtain walls.

He began to hear sounds of music as he neared the Reservoir. As he rounded the curve on its western side he came upon the musicians. They were dressed in makeshift uniforms, and they were playing a mournful, syncopated kind of music that made Gary think of death and grieving, of matters left undone that should have been done, of Wylene and, strangely, of Patricia.

As he tried to move past the group, a hand caught his shoulder and pulled him into the midst of the marchers. He found a clarinet in his hands and tried to give it back. "I can't play," he said.

"Play, brother!" a black face said.

"I'm in a hurry," Gary said.

"Nobody's in that much of a hurry," the other replied, as if they were the lyrics to the music the group was playing. "Play, brother!"

Reluctantly Gary put the mouthpiece to his lips and blew into it. To his surprise music came out, and not just any music but music that fit what everybody else was playing. It was a magic instrument he held that not only made magic music but magically made him feel as if he were making it.

For the moment he lost himself in the experience. He blew and blew, and the sad, guilty music came out, and the music the others made reinforced it, lifted it, made it part of something wonderful. He marched along to the slow beat, blowing music into the air, music that talked about death and sorrow and somehow, by making them into music, eased the pain of loss, made suffering into art.

IX.

Guilt is the process by which we socialize ourselves. Guilt is the

unpleasant feeling we experience when we fail to live up to our ideals. Guilt is the internalized parent who says, "Thou should have, or thou should not have!" Without guilt we would still be savages.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Judge Nelson sat in the judges' lounge, sipped his after-duty drink of espresso and brandy, and quoted Blackstone to Judge Thornhill. Thornhill was an older man of sufficient distinction and maturity that Nelson felt respect for him, perhaps even a bit of the awe that others felt for Nelson. After all, Thornhill had been a judge when Nelson was only a clerk—not much more than a computer jockey. He might have known Nelson's father.

Thornhill sipped his scotch on the rocks. "Of course Blackstone had it all wrong. Today the innocent suffer. The guilty do escape. Though, indeed, he meant it differently."

Nelson looked around the pleasantly darkened lounge, seeing shadowy figures here and there but not caring who they were, as if in his courtroom he saw too much and here he could turn off his vigilance. The quiet and anonymity gave reassurance that the city and its system of justice were running smoothly. "Perhaps we shouldn't stretch our comparisons too far," he ventured. "The innocent do not really suffer. Their guilt is enhanced. A bit of guilt never did anyone any harm."

"Or, to quote Hardister, 'All of us feel guilty. All of us have something to feel guilty about. The problem is that some of us don't feel guilty enough.' Have you ever seen one of them when it hits them?"

"When the button is pushed?"

"Yes."

"I suppose. It's hard to miss seeing that sort of thing once in a while if one is out in public at all."

"Not a happy sight, is it?"

"A little shock," Nelson said. "It must have some effect to serve as an effective notice. It soon wears off. And the citizen is better for it."

"Than without? I wish I could believe that."

"Than if he had been allowed to commit the crime that was welling up?"

"Oh, that," Thornhill said. "Of course. It just seems to me that there's a lot of it these days."

"More than there used to be?"

"By comparison with the amount of crime."

"But there isn't any crime," Nelson said.

"Exactly. Then why all the casework? Why all the citizens we observe getting notice?"

"Even if criminal impulses have been eliminated, we still find antisocial tendencies—"

"That isn't our job. Our job is to prevent crime, not to repress legitimate emotions, not to fine-tune society. How much honest dissent are we suppressing? How much variation in human response are we leveling?"

"I've always said," Nelson agreed, "that there are too many button-pushers."

"It's not that either." Thornhill drained his glass. "The cases come to us with little room for discretion. We're all button-pushers, when it comes to that. Sometimes I think our role is ornamental."

Nelson bristled a bit in spite of his respect for Thornhill. "It isn't as if guilt were bad. Actually we're in remarkably good shape as human history goes. No crime. No poverty. No human misery. Art is flourishing. . . ."

"Art is one of the few areas where emotions can be expressed safely, without fear of repression," Thornhill said gloomily. "Besides, art feeds on neurosis. We push things down in one place, and they spring up in another."

He put down his glass, got up slowly, and, nodding at Nelson, left the lounge. Nelson stared after the old man. He must be due for retirement soon, never having served as an appellate judge, much less a member of the Review Board. No wonder he sounded a little querulous.

X.

Out of guilt comes hope. Guilt holds up for us an ideal state that has not yet been realized; because of that ideal we are able to endure present inadequacies and the pain they cause. Excessive guilt is an overwhelming pain that makes even future bliss inadequate; insufficient guilt stems from an inability to imagine a better future.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Columbus Circle was filled with an outdoor sculpture exhibi-

tion. Strange shapes fashioned out of rubber or plastic had been inflated to float in the air or bob along the ground; others changed their shapes or colors, and some emitted serpentine hisses, beastly groans, or half-human sighs. Even stranger-looking creations were fashioned out of plastic, extruded or shaped by flame or knife. A gigantic piece of ice was being carved by a woman wielding a blowtorch no bigger than a cigarette lighter into something grotesque but compelling.

Almost every piece of art moved Gary in ways that he could not explain. They crouched. They loomed. They moved ponderously or swayed ominously. They were the figures out of nightmares or the demons one pushes into the back of one's mind, out of sight, where no one will suspect their existence, where the omnipresent instruments of the Department of Justice can never find them.

Gary ducked and weaved his way through the exhibition trying not to think about the objects he was moving among or the feelings they inspired in him. He was almost to the other side when he felt a strong hand on his arm. He looked in annoyance into a stranger's cheerful, sweating face. "Come along," the stranger said, "you're drafted."

"I'm busy," Gary said, and tried to pull away.

"Come along," the other said, undeterred. "This is living sculpture. Be part of it!"

Protesting, Gary was dragged to a spot where living men and women stood in unusual poses among white foam people. All of them—meat creatures and foam things—were pointing in seeming horror at an empty platform; it was like a game of statue played in a wax museum. Then, as the sculptor drew Gary through the group, the platform was empty no longer. Gary was standing on it.

The sculptor pressed a white, foam figure into his arm and placed a knife in Gary's other hand. Then Gary felt the hands of the sculptor on his body shaping him into position as if he were just some other kind of plastic material.

Gary looked around him, unable to understand what was happening. The crowd that surrounded the platform was pointing at him. The crowd was pointing at him! He felt uneasy, disturbed, guilty. It was like a nightmare. He had nothing to feel guilty about. He wanted to shout at them, "I haven't done anything!" But he choked it back and looked away, turned his eyes down.

The foam figure in his arms had been shaped into the form of a woman. Her head was thrown back, her body was arched away



from him, or perhaps from the threat of the knife in his hand. He could see only her chin and the long sweep of her throat and the upthrust cones of her plastic breasts.

"Go on," someone said. "Do it!"

Gary looked toward the voice. There was a man where the voice had spoken; he was motioning with his hands. Gary recognized him almost immediately. The sculptor.

"It's all right," the sculptor said. "It's art."

The real people and the plastic people were pointing. He looked back and forth between them and the sculptor, and then down at the figure in his arms, dreading the knife, yet asking for it, begging for it.

"Do it!" the voice urged. "It's art. Not real. No one can call you to account! It's all right to feel things! You can do it and no one can demand justice!"

To be accused and to commit no crime. It was like what had

happened to Patricia, or Wylene. Rage rose in Gary's throat. Desire made his arm tremble. A sense of power surged through his body. The world turned glittery. He drove in the blade. Again and again he struck, feeling the blade plunge through brief surface resistance and then slickly up to the hilt.

And the figure in his arms moved. He felt it move, and horror swept through his body, occupying all the places the feeling of power had existed. He held up his hand. It was shaking. The movement flipped red drops from the blade. The white bosom he held in his arm was red with something spurting through a multitude of cuts, and the body was moving, coming apart in his arms, crumbling, falling in bits of plastic onto the platform, and Gary turned and ran, dropping the knife, pushing his way through the pointing figures. . . .

XI.

Injustice is relatively easy to bear; what stings is justice.—Henry Mencken.

Judge Nelson was already halfway from the elevator to the great doors of the Tower of Justice, past the massive central figure of Justice covering her eyes with one hand while the other pressed a button on the bench in front of her, when a clerk clattered across the floor behind him. "Judge Nelson!" Nelson turned and waited until the young man caught up with him.

"Judge Nelson!" the clerk repeated breathlessly. "I'm glad I caught you. The Review Board wants to see you."

"Now?" Nelson asked.

"Yes, sir. Before you leave."

Nelson thought about the pleasant walk home he had been anticipating, the welcome from his wife, who always waited up for him no matter how late his shift, the moment he allowed himself to look down upon the face of his sleeping daughter, secure in her bed because of the work he did. And he shrugged and returned to the elevator with the blond-haired young man. The clerk seemed relieved and talkative now that his mission had been accomplished, and Nelson responded to his remarks absently, thinking it had not been so many years ago since he had been young and breathless like this clerk, wondering what challenges and fulfillments the future would bring.

It had brought satisfaction, though never moments as exciting as the promise when he had been named to the bench. Well, it was part of growing up to seek maturer gratifications and not to surrender to vain regrets or idle speculations, such as why the Review Board wanted to see him.

XII.

Guilt gives us ourselves, a sense of what we are as individuals measured against some social ideal; it gives us not only freedom but the possibility of transcending the self.—The 1996 Hearings on the Hardister Plan for Justice Reform.

Times Square was clean and uncluttered. All the tawdry little shops had been replaced by handicraft and art stores, with imaginative displays and bright little signs. The garishness was gone. There was advertising, of course—but tastefully and cleverly done, even though all the men looked a bit too worldly and the women looked wholesomely attractive but as if given the chance they would be naughty, a bit like Patricia when she was most appealing.

The theater had returned to Times Square: billboards were everywhere and marquees announced new productions and revivals of old favorites. Even the streets—now cleared of tramps, pimps, and prostitutes—had been taken over by the players.

Gary found himself in the midst of a street production of "Oedipus Rex," and, to his dismay, cast in the title role.

The actors moved around him like electronic wraiths, yet they were as solid and real to Gary as his own flesh. He felt the emotions and the words as if they had been imprinted on his brain, as indeed they were. To an external observer, the action of the play would have seemed a blur, but it seemed to Gary as measured as a dream; each scene, each speech, seemed precisely paced, even though the key scenes stood out from the background like van Gogh objects outlined in black.

"There is a horrid thing hid in this land," Creon said, "eating us alive. Cast out this thing, and all will be right again."

Gary-Oedipus replied, "For my own sake, I'll see this sin cast out. Whoever killed Laius, let the same murderous hand find me too. Caring who killed Laius is like caring who killed my own kin."

Tiresias, the blind seer, said to him, "You sought the killer of Laius. I tell you he stands here. Blind, who once had eyes, beggared, who once had riches, he shall make his way across the alien earth, staff groping before him, voices around him calling, 'Behold the brother-father of his own children, the seed, the sower, and the sown, shame to his mother's blood, and to his father, son, murderer, incest-worker.'"

Later he heard himself confess, "At Pytho I asked God if I were indeed the son of Polybus, king of Corinth, and was denied an answer; instead His voice gave other answers, things of terror and desolation, that I should know my mother's body and beget shameful creatures, and spill my father's blood."

When his wife, Jocasta, was introduced to the stranger from Corinth, he heard the leader of the Chorus say, "She is his wife and mother—of his children."

And at last, with guilt and grief raging through his body, he shouted, "Enough! Everything will come true. I have seen too much misery to see more. I am revealed in all my sinfulness—born in sin, married in sin, killed in sin."

He stabbed out his eyes and felt the pain as if it were his own and knew it as less than the pain he felt inside.

Leaving the scene it seemed to Gary as if he were blind, feeling his way with a staff, and he heard the Chorus say, "Look, citizens. Here comes Gary Crowder, who answered the Sphinx's riddle and became the most powerful of men; good fortune loved him, and when he passed people turned to watch him. Now he is miserable and low. Citizens, beware, and do not count anyone happy or fortunate until the full story is told and death finds him without pain."

Suddenly Gary was free of the street theater, free of the electronic impulses that enslaved him to actions he had never taken, emotions he had not felt, and pain he had not earned. In actual time only a few minutes had passed. The Tower of Justice was not much farther now, and he moved on toward it, unpurged.

XIII.

Guilt creates God. Out of the family unit—mother, father, child—comes guilt; and out of guilt comes God, the ultimate parent, who sets for us the highest model, the impossible goals.—The 1996 Hearings on the Hardister Plan for Justice Reform.

The Board Room was at the top of the Tower, commanding a view of the city on all sides, like the eye of God. With compulsory smoke and fume suppression, the air was as clear as the moral climate, and the visitor could see from the Battery to the Bronx, from Queens to the Palisades. Nelson had been in the room twice before, when it was open for employee tours, but then it had been day and he had not been summoned.

The judges who made up the Review Board were all elderly. They had been elevated from the ranks of the appellate judges at the time other appellate judges were retiring. When one member of the Review Board died, or became too infirm to serve, the other two members elected a third. They were, after all, in the best position to judge. They had information on all judges and cases at their fingertips.

Literally it was true. They sat behind a long bench opposite the elevator door, their backs to the windows as if disdaining another reality than the one in front of them. Each section of the bench angled to follow the curve of the outer wall so that Nelson had to stand almost clasped within the arms of the bench looking from one judge to another.

To Nelson they all looked alike. They were alike in dignity and power, even though one was a woman, small, white-haired, and wrinkled, another was tall, thin, and black, with little silver curls in the black wool of his hair and beard, like turnings from a metal lathe, and the third was big and tanned and dark-haired. Nelson thought that the dark hair was a wig. They were named Barington, Stokes, and Fullenwider. Nelson knew them by their pictures. But there was something particularly familiar about Fullenwider.

Judge Stokes sat in the middle. "Judge Nelson?" he asked.

"Yes, sir."

"We have received complaints about your work."

"From the appellate division?" Nelson asked. He could not keep surprise from his voice.

"Not from the appellate division," Judge Barington said. Her voice was surprisingly big and strong. "Your judgments are seldom appealed."

"That in itself raises questions," Judge Stokes said. "Too few appeals suggests excessive leniency, just as too many suggests excessive severity."

"But what we are chiefly concerned about is the amount of your work, not the quality," Judge Barington said. "There have been

complaints."

"By whom?" Nelson asked, though he thought he knew.

"That is irrelevant," Judge Stokes said.

Nelson wondered why Judge Fullenwider didn't say anything, and why he looked familiar.

"The evidence is available from the computer," Judge Stokes was saying. Nelson had missed something but perhaps it didn't matter; he couldn't believe he was standing here listening to his life being reduced to numbers. "You have the lowest case load of anyone in this jurisdiction. You are thirty per cent below the average."

Nelson struggled to remain calm, to behave the way a judge should behave. "Perhaps I'm more careful than the others," he said. In spite of his efforts, alarm was fluttering in his throat.

"If you don't handle your share of the cases, the work load increases for everyone else," Judge Barington said.

"A judge must make judgments," Nelson responded automatically, glad that he could pull these phrases out of past conversations, that he did not have to think. "That takes time."

"Nonsense!" Judge Stokes said. "The work isn't that difficult. 'All of us are guilty.'"

"Indecision can disqualify you from the exercise of your authority," Judge Barington said. "You can be removed by a vote of this Board if it finds you incapable of performing your duties."

"I know," Nelson said. It had come to this. "But surely there are more serious faults. I know some judges who no longer even have faith in what they're doing."

Judge Fullenwider spoke for the first time. "Who?"

Nelson hesitated, the puzzling familiarity still bothering him. "I don't know any names. One hears things. One puts things together."

Judge Fullenwider shrugged. "If there is disloyalty, if there is lack of faith, it will reveal itself. For now you are warned. Get your case load up to the average. You will not receive a second warning."

Now Nelson knew why Judge Fullenwider looked familiar. He looked the way he remembered his father. If he had been dressed in blue, with a cap on his head, the resemblance would have sent Nelson to his knees. Instead, he only nodded numbly and turned to the elevator.

On the way down to the lobby he thought, I'll have to be faster. I'll have to turn into a button-pusher like the others.

That made him feel worse. At least, he told himself, I didn't name anybody when they asked. But he knew he would have named Thornhill if his father—if Fullenwider has pressed him, and that was just as bad.

XIV.

Of all manifestations of power, restraint impresses men most.—Thucydides.

Gary Crowder was coming out of the appeal booth when Judge Nelson emerged from the elevator. Both looked shaken.

Gary stopped Nelson with a hand upraised in his path. "Are you a judge?"

Nelson frowned. The lobby was public territory but he cherished his anonymity, now more than ever, when his judgment, his professional conduct, had been questioned and his future was in the hands of others. "Yes," he said reluctantly.

Gary brought his hand forward to grasp Nelson's arm. "I've been trying to appeal a judgment," he said, "but they say I can't."

"They?" Nelson repeated. He was still thinking about the Review Board.

"The appeal booth there." Gary motioned with his free hand.

Nelson freed his arm with an impatient jerk of his shoulder and looked where Gary pointed. The glass-sided appeal booth, open and honest, was connected directly to the computer. It should accept an appeal automatically and refer it to the appellate court. "What did you say?" he asked, as something in the young man's babbling suddenly made sense.

"They said I couldn't appeal someone else's case," Gary repeated. "That's—"

"That's right," Nelson said, relieved of the need to act. He walked toward the door that opened into the night. Gary trotted along beside him, half-turned to look at Nelson's face. "It has to be your own case. Obviously we can't have people going around appealing anybody's case."

Gary looked ridiculous as he took a little hop to keep up. "But it's a girl!"

"Young women come under our jurisdiction, too," Nelson said with an irony that was wasted on the young man. The door opened for him, and he went out into the friendly night. Out

there, where he had hoped to regain his composure and his confidence in himself, he was annoyed to discover that the young man was still with him.

"The way Patricia feels," Gary said, his voice high and tight—Nelson spotted it immediately as a symptom of adrenaline flow—"she can't appeal. Don't you see—she feels guilty? And she doesn't know what she's done."

"I assure you," Nelson said impatiently, "her case was considered carefully. The decision was justified. She had something to feel guilty about. 'All of us,'" he quoted, and felt compromised for having resorted to it, "'have something to feel guilty about.'"

"But it's not fair," Gary said. "You don't know Wylene the way I do. You don't know how innocent she is, how pure and good. And now—"

"Wylene?" Nelson echoed.

"Did I say 'Wylene'?"

Nelson shrugged. "Wylene, Patricia....I don't want to know her. The Department of Justice, in its wisdom, knows her far better than you do. You can believe that! Or not. It's immaterial to me and to the Department."

He turned away from the young man. As he turned he saw in front of him on the sidewalk the shadow of an upraised arm cast by the light from the doorway behind. It was an image out of every nightmare he ever had, and he waited for his father to strike. When the blow did not come, he turned and found the young man standing behind him, rigid, like a statue dedicated to anger.

Then the statue came to life like stone cracking. The upraised arm dropped to the young man's side, its crime unperformed.

"Young man," Nelson said, "are you all right?" But he knew what had happened. He summoned a taxi and helped the sick young man into the back seat. "Can you take care of yourself now?"

Gary nodded weakly. "I'm sorry," he said. "I shouldn't have—I'm sorry."

XV.

Guilt creates society. Without guilt society would have no ultimate power to persuade. Without society we would be barbarians—The 1966 Hearings on the Hardister Plan for Justice Reform.

In the morning Judge Nelson awoke with his heart pounding as if he had been running for many minutes. He was breathing rapidly. His muscles trembled. His hands were wet; his face was hot. He had the fading memory of a nightmare—no, not the memory but the feeling of inescapable terror, the need to flee and the inability to move.

He knew what it was. He'd had enough experience with it second-hand. Guilt. He never knew what it was for.

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H8E186

STAR TRAIN

by Drew Mendelson

A native of Kansas City, Mr. Mendelson has been living in California for 10 years; his occupation is graduating from college with a BA in creative writing. He claims to play a passable game of Go, a fair hand of poker; and drives a dying VW. His cat is named Murphy (after the Law of the same name). At 31, the author is without wife or children and has an SF novel in progress.



Leo had not been designed for this. Life lay outside his scope. He asked Orsini when Orsini's train stopped for an hour at Leo's station.

"What do I do, Orsini? It seems alive."

Orsini didn't know.

It was a doll. Leo had found it on the waiting room bench after a family had transferred trains on their way past Centaurus to Earth. She was a tiny thing in Leo's cupped hands, a doll that talked and walked and cried and wet and breathed. Leo's hands,

twice the size of any human hands, held her. He offered her to Orsini. Orsini refused.

It looks to be a baby, a human child," Orsini said. "Now who would leave a child of theirs on the waiting room bench? Who would leave a baby a thousand light-years from a living world?"

"I have no way to care for a child," Leo said. "There is no air here at all but the waiting room air. The trains bring that when they come. The last roomful is nearly exhausted. Human babies need water. I have none. Human babies need food, do they not? I have no food. What will happen to it, Orsini?"

"It will die," Orsini said. Orsini remembered death. He had died himself some time ago, one and a half millenia as Orsini recollected it. Orsini was an illusion. His personality, stripped from him bits at a time, stretched through 28,000 parsecs of space. His personality now, a thousand and a half years after his death, powered the engines of the star trains.

"I carry only freight," Orsini said. "There is no room for life aboard my train."

"Help me, Orsini," Leo said.

"I can't," Orsini told him. "I must leave now, Leo. I have a schedule to keep."

The star trains' illusionary engineers were notoriously intractable. All constructive thought had ended in them when they died; they were simply the memories of men and women imprinted on the substance of space. What they had not done they would never do. What they hadn't thought was unthinkable to them. They were stretched gigantically from star to star, halfway across the galaxy. Yet, like the steel rails of the planet-bound railroad, they moved not an inch by themselves.

"I must go," Orsini said. And the ugly gnomish image of that which had once been Orsini left with his interstellar freight.

Leo held the baby. It cried, and though passengers had come and gone countless times through his station, some with crying babies, it was as if Leo had never heard the sound before. He had never held a child. His hands were for the lifting of colossal weights, metric tons from train to train. His hands were for the shifting of switches in the rail yard that was Leo's station. His hands, though they seemed supple and human, were the highest evolution of metallurgy and mechanics. He was of metal and built for metal and for the railroad between the stars. Life was outside his scope.

The little girl cried. She said "Da-da," in a high clear voice and

struggled fitfully in Leo's hands. He held her like an egg or something as fragile, out away from his body. Leo had a face, fashioned in the image of a human face so as not to frighten the passengers who came through his station. His eyes were human enough, pigmented blue and white, iris and eyeball. Even his skin had been of human color once, an indeterminate shade of human colors blended. It had faded, and his hair was not in single strands but molded in a mass. The baby didn't know and still cried, "Da-da," to Leo.

"What do I do with you?" Leo asked the baby.

"What do I do with a human child?" he bellowed into the empty station, and his voice was ten times a human voice and the child struggled and cried.

This was Leo's world, the station. He paced it; it was twelve strides long, twice that in human strides. He paced it. It had not seemed so small before during his ten centuries there. There was a beauty to it, he had always thought that. *Fyri*, the giant B-3 sun, was so close that its corona whipped the station's walls. Its solar wind flew by in tatters, glowing. He, Leo, was the sort of life that belonged here on the star trains' right-of-way. He paced, and the mewling of the little girl grew shriller and more desperate. He found that she had wet his hands. Her crying wouldn't cease.

There was nothing soft in the station at all. Everything was durable. Nothing wore out in human lifetimes. He wrapped the child as best he could in the soft sheets of insulation he tore from the station's walls.

Then Leo went onto the wire. It was the way they spoke between the star train stations, a modulation of the rail force itself. It was half thought and half wish. Leo wished that Gonzalez, the human track master at Centauri station, would hear. Perhaps Gonzalez came on the wire, perhaps Leo only wished he did. It didn't matter; the star train only probably existed to begin with. It existed only because passengers, railroaders, and engineers believed that it existed. The star trains were driven by belief, and the force of that belief carried talk between the stations.

"I have a child," Leo said. "Someone left it in my station. When will you send a train to get it? She will die soon if you don't."

Did Gonzalez say he wouldn't do it? So Leo believed.

"There are two hundred thousand parsecs of track. There are a hundred and twenty five trains," Gonzalez said. This was long before the trans-mat came to kill the interstellar railroad. This was the heyday, the high time of the railroad. "Leo, there are two

million passengers a day on our trains. Do I disrupt this all because you are concerned with a bit of life?"

"It is a human child," Leo said.

"I'm afraid it's not," Gonzalez told him. "All our fare-paying passengers are accounted for. No one has lost a child."

"I tell you it is a baby," Leo said.

"Wait, please, Leo," Gonzalez said. "We'll find out for you soon."

Leo did not deal in hours easily. There was a clock of sorts within him that kept track of things of short duration. Living things were changeable, breathing one time, not the next. The passengers who came through Leo's station were like that. The same passengers were always different when they came on different journeys. It was the hair, the eyes that changed. They called this process aging. It seemed to Leo that aging occurred in humans at a frightening rate. There was a woman called Malinda who had ridden the star trains at regular times. And it seemed incredible to Leo that in the short space of fifty years, almost an eye blink of time, she had become grey suddenly, stooped suddenly and frail as if the star train had leached strength from her. He had enjoyed her comings and goings like a periodic comet. She had not traveled the star train in years. Perhaps she died. Life was like that.

Gonzalez was back. Leo saw that the baby had not changed and the clock inside him could detect no time past or very little at all.

"You can relax, Leo," Gonzalez said. "You know you gave us quite a fright here. A couple came through, a family with a child of their own, this morning through the main gate at Earth station. And they reported the loss of a doll. It belonged to their little girl. They said she left it in your station by accident. It's not a human child at all. It's just a toy, a doll, Leo, nothing to be concerned about. Send it along on the next train through. We'll get it back to its owner."

The child moved on the bench, quiet now, playing with her toes. She watched Leo; he thought he saw her smile.

"Gonzalez," said Leo, "this child is no toy. It breathes in the way humans breathe. It says things to me. It said 'da-da' to me. Human children do that. I have seen them and heard them when they come through here. The next train is one week off. How can I wait until then to send this baby? For pity's sake, Gonzalez, this thing—toy or not—is alive."

"Leo, it is a construct, an imitation of a living thing, a toy for a child. It breathes because the child it imitates breathes; it laughs

because human children laugh; whatever human children do it does. But it is not human, it will not grow or change. It was made like that."

"I am a construct," Leo said. "I am an imitation of human life. What a human does I do. What of me, Gonzalez? Are you going to let me end when I'm not important any more?"

"That's different, Leo, you serve a function."

"And when that function is over, do I die too, because I'm not of human stuff?"

"Leo, it doesn't mean that at all. . . ."

"We will see, Gonzalez. I'm bringing this child to you, toy or not, doll or not. Human are frail and quick to die. I will find a way to bring you this child. Best you pray it doesn't die before then."

Perhaps Leo said this. Perhaps it was a wish. *Fyri* flamed a hundred million miles away, and the star train here rode the crest of a gravity ridge. The solar wind here from the giant star was a gale. Its energy stung Leo's skin. He stood on the star train platform and watched the winds of this sun's light scud down the rails. Few could see the star train's track; it was not in most to see it. The track was simply a path of least resistance between the stars, forced open by the passage of a human mind. It remained as long as the force of that mind remained. Leo existed because of the trains, had been built for them, would die with their end, and thus he saw the tracks and believed. A thousand years of solar winds had pitted him, had blasted him smooth, though he was pocked minutely where the largest particles had struck. He lived off the energy, fed off it. He stood in the buffeting of this solar wind and it streamed along behind him. Broken atoms pelted him; he sucked at them and grew drunk.

Leo said, "I'll take the child to Centarus. There is a way."

There was a way, the most pitiful chance of a way. There was a yard cart at Leo's station, an open frame of metal sealed with glassite windows, an open cage powered, as all the trains on this line were powered, by the memory of Orsini. Now, maybe there was air enough and maybe there was time enough to barrel this flimsy cart down the right-of-way to Centarus.

"It won't go," a little Orsini said, "I can't drive this cart fast enough. I don't believe it, so it won't go."

Orsini was everywhere on his track. At times there were ten-twelve-fifteen Orsinis simultaneously. Every time a train moved on this track its motion conjured up another image of Orsini. But

this was so weak, so tiny an Orsini: the engine of the yard cart could evoke only the thinnest Orsini from this stretch of his track.

"I feel I am barely here at all," Orsini said. "I'm too weak to drive this cart fast."

Leo sat beneath the blaze of the great B-3 sun in the compartment of the yard cart. "Take her out, Orsini," he said. "We'll go as fast as we can go."

The baby squirmed in Leo's hands and stars drew dopplered streaks on the glassite roof. They rolled out of Leo's station, picking up speed down the gravity ridge. Orsini's belief drove the yard cart here, and now he seemed nothing but a wasted runt.

"This is life, Orsini," Leo said. "Once you had it; do you remember it now?"

Orsini answered, "I don't know." But Orsini remembered death. The doll child was dying. They both saw it now. Her struggles were weaker. She didn't smile. She didn't say "da-da" to Leo. She cried in a thin continuous wail that Leo scarcely heard.

"You were a human, Orsini. Don't humans care about life?" Leo watched the doll child dying. The yard cart crawled along the light-years.

Leo went on the wire.

"Gonzalez, this is Leo," he said. "I'm coming down the main grade track. I'm in the yard cart, coming to Centarus. I'm bringing you this baby. We just might make it before this baby dies."

"Leo," said Gonzales, perhaps he screamed; Leo wished he had. "Take your cart back to the station now. I have a freight coming on your same track. Forget the doll, it's nothing of worth. You're on the same track as the freight."

"Move it," said Leo. "Sideline that train. I won't have anything stopping me."

The yard cart rolled on Orsini's track. He was an ugly little man, solid and squat with a brutish turn. But he'd heard Gonzalez on the wire. There had been children in Orsini's life. He saw the dying baby. He listened to Gonzalez on the wire. Maybe he began to believe. Did the yard cart pick up speed? Maybe Orsini was growing now, not so scrawny, filling out. Did Leo see the track ahead where it wound down a valley through gravity bluffs? The yard cart rolled on the star train's track fifteen light-years an hour toward Centarus. Orsini rolled on hate.

"Tells me to sideline, tells me to turn back. I'm Orsini," he said. "Gonzalez knows I built this railroad. If star trains move between the stars it is because of me."

The yard cart picked up speed: twenty light-years, twenty-five an hour. There was a freight on the oncoming track. They heard its lepton whistle now, blown down the track ahead of the train. There was motion and life in the rails now, a wave of belief that swept the star freight on, toward them on their track.

There were no wrecks on the star train's right-of-way. The train was or it was not. Could Leo see that star freight come, ninety light-years an hour, two hundred cars or more? Five light-years off its whistle blew.

"There's a spur and a switch," Gonzalez said. "It's a deadline past *Gann's star*. Leo, pull off there. It's your last chance to miss that freight."

"Is there life on that train?" Leo asked.

Gonzalez' reply came down the wire: "No, it's a freight on Orsini's line. Nothing alive at all."

"Turn the freight then," said Leo. "We're coming ahead."

And Orsini drove the yard cart and Orsini drove the freight rolling toward each other, around the bend of *Gann's star*. The freight train's whistle sounded again, leptons blowing down the track. The freight's light, brighter than the star, swept the track from a light-year away, sucked faster than natural laws should allow by the impulse of Orsini's belief.

There was a noise and a rattling began. The yard cart should not have held on. It rolled at sixty, at sixty-five toward the oncoming train. There was the switch and it swept past, the side track gone and the freight came on.

Trains, if they meet at such a pace on the star track, annihilate each other with an energy fierce as a big sun's death.

Leo held the baby, Leo held the life that Gonzalez said wasn't life at all, a simulacrum. But it cried and struggled and still it breathed.

"Orsini," he said, "this is life here. There is no life on the freight. No matter what Gonzalez says, I believe that this child is alive. I believe that I am also alive. There is nothing on the approaching freight. There is nothing there at all."

"I'm on the other train," Orsini said.

"No, Orsini, here you are alive. There you're only the mind of an old old spacer, a millenium dead. Here you are what counts of Orsini, the last of your life. Do you believe that, Orsini?"

"Maybe I do."

"That's a ghost train coming," Leo said. "It isn't really there at all."

"Maybe I believe it," Orsini said. "Maybe I do."

The freight train began to fade. They heard the whistle; they saw its light. But there was no substance to the train. Orsini was a giant now; he crowded Leo in the cabin of the cart. The cart was flying on the track; a hundred or more it rolled. The dopplered stars were violet flares that burned through the misty fading freight.

"I believe that I am here alone," said Orsini. "I don't believe there's a freight at all."

And they met the spot where the freight should have been, where there should have been a nova's flash. They passed through the ghost train as if it were gone, as if it never had been there at all. Then they turned the curve at the lip of a hill with the galaxy behind and only Centarus beyond.

And at Centarus, Leo delivered life.



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BORN AGAIN

by Sharon N. Farber



A native of northern California, the author is 25 and a perpetual student (currently in chemistry). She raises apples and horses—one of the mares is due to foal and looks like the Goodyear blimp. This is her first SF sale, but she has sold a few short pieces to other markets in the past.

ABSTRACT. *The historical condition vampirism is found to be caused by a microorganism which revamps the host's physiology and metabolism through negentropic processes. Evolution of the organism is conjectured and potential uses of the discovery suggested.*

TITLE. *Haematophagic Adaptation in Homo Nosferatus, with Notes Upon the Geographical Distribution of Supergene-moderated Mimicking Morphs in Homo Lycanthropus.*

I'd forgotten the pitch black of a country road at night. Overhead, between the aisles of trees, you can see the stars; but otherwise it's the same as being blind. Totally different from the hospital where I'd just completed my residency, an oasis of fluorescent light in an urban jungle. You couldn't walk down the best lit streets in safety there. It felt good to be home, even just for a short vacation.

I walked by the feel of the asphalt under my feet. At the bend there'd be an almost subliminal glimmer of starlight on the mailbox at the foot of the drive to my family's farm. The halo of an approaching car rounded the bend, illuminating the road. I discovered I was standing directly in the center, and moved to the side of the road. Headlights washed over me. I shut my eyes to keep my nightsight.

The car hung a sharp left into the driveway of the old Rikken place, and stopped.

City-conditioned nerves made my heart pound faster.

The car door swung open, the overhead lighting up a seated man in his late twenties. He had dark hair and a bushy mustache.

"Are you lost?" he asked.

"No, I'm close enough to home to call the dog."

He chuckled, and his smile turned him handsome. "Don't be so

paranoid. Hmmm . . . you must be the Sanger's famous daughter who went to the Big City to become a doctor."

"Guilty as accused. And you must be the Mad Scientist renting the Riggen spread."

"No, I'm just a humble masters in microbiology. Kevin Marlowe. My boss Auger is the mad scientist."

"The Auger?"

He flashed another grin. "Ah. Why don't you come to tea tomorrow, Doctor, and see."

AUTHORS. Alastair Auger, Ph.D.

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Asterisk. Funded by a grant from the Institute for the Study of Esoterica.

INTRODUCTION. Recent advances in medicine have necessitated differentiating between clinical death, or cessation of heartbeat, and biological, or brain death. The distinction has been further complicated by the increasing use of heroic life support methodology.

History reports rare cases in which clinical death was not followed by biological death, but was maintained in status. The affected undead individuals were called Nosferati, or vampires. The authors' investigation of this phenomenon has led to the discovery of a causative microorganism, Pseudobacteria augeria.

"Dr. Sanger, Dr. Auger."

"Charmed." The great Professor Alastair Auger smiled down at me. He was tall, gray-haired but with dark eyebrows, somewhat out of shape, a couple of decades older than Marlowe and I. He had the clipped words, riveting eyes, and radiating intellect of the perfect lecturer.

He continued, "At last we meet someone in this semi-civilized intellectual backwash who at least aspires to the level of pseudoscience."

"You must come by sometime and see my herb-and-rattle collection," I replied.

He raised an eyebrow. "I understand that you've heard of me."

"Sure. Everyone knows about Professor Auger, brilliant—"

He preened.

"But nuts."

Auger said, "You see, Kevin? She has retained the delightful candor of the local rednecks, untempered by her exposure to the hypocritical milieu of higher education. She'll do fine."

My turn to raise an eyebrow.

The doorbell rang. Marlowe looked out the window and groaned. "Hell. It's Weems."

I followed his gaze. Leaning on the bell was a small ferret-faced man, with a gray suit and a loud tie.

Auger grimaced with pain and clutched his abdomen for a few seconds, then recovered. "I'll get rid of him. Take her on a tour of the lab."

METHODS AND MATERIALS. The Pseudobacteria augeria was stored in isotonic saline solution kept at 37°C, at which temperature it is inactive. Titers of inactive P. augeria were injected into host animals, which were then sacrificed. After a critical period, depending on the number of injected pseudobacteria and the generations (Graph 1) necessary to achieve the species specific ratio of pseudobacteria/kg body weight (Table A), the dead host animal was reanimated. The mean latency was three days. The dotted line indicates the threshold number of primary infecting pseudobacteria necessary to replicate sufficient progeny in order to reanimate the body before irreversible decay occurs. In vivo, a number of vampiric attacks or "bites," ensuring a large founding colony, would increase chances of postmortem revivification.

"Vampires?" I repeated, petting a white rabbit. "Come on, we did that one in med school. Funniest gag since Arlo left a piece of his cadaver in a confessional."

I looked around the lab, believing my eyes as little as Marlowe's story. They'd turned an old farm house into a modern-day Castle Frankenstein. Cages of lab animals faced a small computer, nestled amongst the centrifuges, particle counters, electron microscope, and spectrometers. Automatic stirrers clacked away in the background.

Marlowe handed me a stethoscope. "First, assure yourself that it works."

I put it over my fifth rib and heard a reassuring "lub dub lub dub."

"I'm alive."

"Try the rabbit."

No heartbeat.

I stared at it, snuffling in my hands. Marlowe put out a saucer of what looked like blood. The fluffy little bunny tore free of my hold, dove at the bowl, and began lapping up the red liquid.

"Okay, I believe you. How? I mean, its brain is obviously getting oxygenated or it wouldn't be hopping around. But how does the blood circulate if the heart's not pumping?"

"We're not sure." He waved at a garbage can. There was a former rabbit inside.

"Were you dissecting it or dicing it?"

"Auger's a biochemist, and me . . . well, neither of us can even carve a roast."

"I see. You need someone who feels at home with a scalpel, right? Look, this is my first real vacation in seven years, and I have a job that starts back east in a month. . . ."

Weems and Auger entered the lab.

"I am certain, Mr. Weems, that even you will notice that we have not had recourse to the pawnshop," Auger said, gesturing expansively.

Weems pointed to a coffee mug sitting on the infrared spectrometer. "Is that any way to treat the Foundation's equip—Who's she?"

"Our new associate," Auger said.

Weems looked at me contemptuously.

"You wanna see my credentials?"

He sneered. "I think I see them."

I said, "You boys just got yourselves a surgeon."

The progressive effect of vampirism upon host physiology was studied in rats. One group was injected with a threshold number of P. augeria, sacrificed, and placed in an incubation chamber held at 15°C to hasten replication. Ninety-seven percent of the infected rats reanimated between 54 and 73 hours post-mortem. Specimens were sacrificed at intervals of 0, 6, 12, 24, etc., hours post-revivification, and the gross anatomy, pathology and serology studied.

Another group of control rats was injected with normal saline, sacrificed, and placed in the 15°C incubation chamber. These underwent classical necrotic decay, and were disposed of on the sixth day.

"Whew. Smells like a charnel house," Marlowe said. "How do you stand it?"

"It's obvious you never worked in an inner-city clinic, Kevin. Or lived on a farm." I pointed to the rat I had pinned open on the table and was dissecting under red light.

"See that? They may not be using the heart as a pump, but it's still the crossroads of the circulatory system. That must be why the old stake-in-the-heart routine works."

"Only as a temporary measure," Marlowe said. "The microorganisms seem able to repair tissue. Remember, the classical method of killing vampires is staking, followed closely by decapitation or burning."

"Mmm. Stake, season well with garlic, and place in a hot oven until thoroughly cooked. Look at those little buggies move."

"Please do not call my *Pseudobacteria augeria* 'buggies'," Auger said, walking in on us. He was good at that.

"Oh, you'll want to see this, sir," Marlowe said, handing the taller man an electronmicrograph.

"Beautiful!"

I stood on tiptoe to see. The micrograph showed the bug, with its bacteria-like lack of a nucleus, its amoeba-like pseudopods and irregular cellular borders, and its just-plain-weird ribosome clusters and endoplasmic reticulum, plus some things not even Marlowe could identify. There was a smooth, anucleate disc attached to the outer membrane.

"Wow! That's got an erythrocyte hooked on!"

"I let them settle out instead of centrifuging," Marlowe said proudly. "The spinning must dislodge the red blood cells from the surface."

"Well, that explains how the blood is transported," I said. Auger lifted his eyebrow slightly, to signify intellectual condescension.

We heard a car drive up.

"Hell and damn!" Auger said. "It must be Weems again." He scowled and left the room.

"How about seeing the movie in town tonight, Mae?" Marlowe suggested.

"We've seen it, twice, unless you mean the new Disney over South-County."

"Lord, what a dull area. How do you stand it?"

"Well, in three weeks—when I'm in a Manhattan emergency room and up to my ears in blood—I'll cherish these nice quiet memories. Why don't we take a day off and drive down to the city—"

"Idiot!"

Outside in the garden, Professor Auger was shouting. We heard Weems shouting back. Marlowe and I ran out.

"It's revoked," Weems was yelling. The little man had ducked behind his car for protection. Auger looked mad enough to throttle him. His face was livid, and he was breathing as if he'd just run the four-minute mile. I didn't even want to imagine what his blood pressure was up to.

"Calm down, you'll give yourself a stroke," I said.

Weems turned to us triumphantly. "The Foundation's revoked the grant. We'll want a total accounting."

"You bastard!" Auger bellowed, and lunged across the car at Weems. He halted in mid-stride, a confused expression on his face, grabbed his stomach, and collapsed.

I leapt over and began examining him. He was pale and breathing rapidly, with a weak, racing pulse. Shock.

"Is it a heart attack?" Weems asked. The little rodent sounded happy.

Marlowe knelt on the other side. "What can I do?" he asked. I ripped open Auger's shirt and felt his abdomen. It was hot, pink and firm. Internal hemorrhage.

"Oh, Christ." I reached inside his pants and felt for the femoral pulse. There was none. "Well, that's it. Damn." I realized I was crying.

Auger stopped breathing, and Marlowe began mouth-to-mouth resuscitation. I reached to the neck and felt for the carotid pulse. It fluttered weakly and then faded.

"It's no use, Kevin. He's dead."

Weems chortled gleefully, jumped in his car, and sped up the driveway in reverse. Marlowe began external heart massage, anxiously doing it 'way too fast.

I pulled him off and shook his shoulders. "Stop it, Kevin. It won't help. Remember those stomach pains he had? It was an aneurysm, a weakness in the wall of his abdominal aorta. It burst, Kevin; he's bled to death internally. CPR won't help, dammit, nothing can."

"Ambulance, call a—"

"Listen. Even if they could get here within a half-hour, it wouldn't do any good. Look, Kevin, five minutes ago, if I'd had him on the table in a fully equipped operating room, with a good team, we could have tried a DeBakey graft. But the chances of saving him would have been maybe 5%."

Marlowe stood and stared down at the body. Then he turned

and ran inside the house, leaving me with the corpse. Dead, Auger was devoid of charisma. His features were bloodless white; he looked like a horror waxwork. I closed his mouth and rearranged the clothes to give him more dignity.

Marlowe returned with a huge cardiac syringe and a bottle of milky liquid.

"You're crazy."

"It would work, Mae. We can bring him back. I centrifuged them down to a concentrate. There are enough pseudobacteria here to repair the damage and reanimate him almost immediately."

The implications were terrifying. Vampire rabbits were bizarre enough, but he was preparing to do it to a human being.

"You can save his life! Come on, do it."

Typical Marlowe, always leaving the decisions to someone else. I filled the syringe and plunged the six-inch needle deep into the blood-distended abdomen. Marlowe looked ill, and turned away. It was hard work pushing in the fluid. I pulled the needle out, and a small amount of blood welled up through the puncture. Two more syringes full and the bottle was empty.

We carried the body into the lab and packed it in ice to lower the body temperature quicker. Marlowe went away to vomit. I brewed some coffee and added a stiff jolt of medicinal Scotch.

"Here's to a fellow future inmate of Sing Sing," I toasted Marlowe.

Half an hour later we were feeling no pain.

"We'll have to buy him a black cape," I was saying. "Lessons in Transylvanian diction, too."

"I want to suck your blood," Marlowe said, and leapt on me. We collapsed on the floor together, laughing.

The doorbell rang. Weems had returned with a sheriff's deputy.

"Hey, Fred!"

"Uh, hi Mae. Long time no see." The deputy looked embarrassed.

"We went to high school together," I announced to no one in particular.

"Sorry to have to disturb you, but this guy says you've got a stiff here."

Marlowe giggled from the floor. "A body? I don't see anybody." He adopted a stern voice. "The only thing dead around here is the night life in town."

Weems piped up with "They're drunk."

"Brilliant, Weems, an astonishing deduction," I cried.

"They've hidden the body! Alastair Auger was dead. She even said so." He pointed at me accusatorily.

"Remove your finger."

The deputy stepped between us. "Uh, I'm sorry Mae, uh, Doc, but I have to make a report."

"Professor Auger's not feeling well, Fred; he shouldn't be disturbed. Hey, you can believe me when I say he's alive. I'm a doctor. We're trained to know these things."

"They're faking. I won't leave until I see Auger's body."

"Yes, it is awe-inspiring. But I'm afraid you're just not my type, Weems."

Weems's face blanched at the sight of Auger, leaning in the doorway to the lab, and smiling malevolently at us all. He was glistening from the ice, and was wearing a towel.

"She's done something to him," Weems stuttered. "He was dead."

The deputy took Weems's elbow and propelled the little man out the door. "Sorry Mae, Professors—" He headed for the patrol car, saying "Okay, mister, there's a little matter of making false reports."

Marlowe laughed hysterically.

"If you hadn't woken up right then," I said, "you'd have woken up in the county morgue."

Auger said, "If you'll excuse me, this light is most unpleasant and I'm starving."

I offered to fetch him a pint of blood.

"Yes, please, Doctor. I'm finding myself uncomfortably attracted to your neck."

RESULTS AND DISCUSSION. The vampire is traditionally considered a body occupied by a demon. We may now modify that picture to encompass a mammal, dead in that its heart does not beat and its body temperature is abnormally, indeed fatally, low, but still functioning as an organism due to the presence of a colony of symbiotes. The pseudobacteria function as metabolizers and as transporters of oxygen, nutrients, and wastes, functions assumed in uninfected organisms by the circulatory and digestive systems. P. augeria is a weak infective agent, requiring the special environment found after death, and susceptible to most common antibacterial drugs. Folklore documents the vampire's aversion to garlic, a mild antibiotic.

The host physiology undergoes changes which seem to eliminate unnecessary systems and increase efficiency for vampiric adaptations. These changes appear to be progressive, but must await long-term studies.

The first major change is the atrophy of the digestive tract. Nutrients pass directly from the stomach to the blood-stream, with the concurrent necessity that only isotonic solutions be ingested, to avoid the osmotic destruction of the blood cells. As the only isotonic solution available in nature is blood, the vampire's fluid intake has traditionally been in this form. An external blood source is also necessary for other reasons. Because blood transport is pseudobacterial rather than hydrostatic, and hence much slower, the body requires more red cells than can be produced by the host's bone marrow.

"All the great men are dead—myself, for instance."

"Breathe in," I replied.

Marlowe walked in, saw us, and blushed. The longer I knew Kevin, the more I realized how anal retentive he could be.

"Am I interrupting?"

"Yes," Auger said. When he spoke, I could see his sharp canine teeth.

"No. Pass me that, yeah, the sphygmomanometer. You don't realize what a pleasure it is to have a patient who doesn't complain about the stethoscope being cold."

I joked as I put on the blood pressure cuff, trying to hide the creepy feeling Auger gave me. Intellectually, I knew he was the same man I'd met a week before, but emotionally I had problems relating to a patient with a current body temperature of 30°C—midway between what it should be, and the temperature of the room. And because of the vagaries of his circulation, even in the warmest room Auger's hands felt like he'd been out in a snow storm without his mittens.

"Must we do this again?" Auger winced as I pumped up the cuff. I nodded, and listened with the stethoscope. I just couldn't get used to the fact that his heart didn't beat, and that he had no blood pressure.

"No diastolic, no systolic," I said. "Sir, your b.p.'s holding steady at zero over zero."

"Ah, normal," Auger said, reaching for his shirt. "Enough time wasted. Shall we return to the lab?"

He hated medical exams (and, I was convinced, doctors as well).

I argued in vain for the opportunity to take him to a hospital and run some *real* tests on him: X-rays, metabolic studies, EEGs. . . .

"It's three in the morning," Marlowe complained. "I need some coffee."

"Can't get used to working graveyard shift?" He acknowledged my joke with a weak smile. This nocturnal living was tough to get used to. Auger had acquired the vampiric dislike of daylight. Another thing that needed more study: was it because of the temperature, or the infrared radiation? In any case, my parents seemed to think my new hours were the result of an affair with Kevin Marlowe, and this made things fairly uncomfortable on the home front.

Auger accepted a cup of coffee, and stirred in a spoonful of salt, to make it osmotically similar to blood.

"There aren't enough metabolites and nutrients in the blood you drink to sustain you, Professor. Where the hell do you get your energy?"

"It's a negentropic process, similar to the one which allows my *Pseudobacteria augeria* to be dormant over 35°, while ordinary enzymatic processes become accelerated," he told me. "How much calculus have you had, Dr. Sanger?"

"Two semesters."

"You'd need at least four to understand. Hadn't we better return to work?"

As human populations grew, they tended to eliminate competing species, creating a niche for a predator. It may be possible to remutate Pseudobacteria augeria to its hypothetical ancestor, P. lycanthropica, which could survive at normal body temperature and changed its hosts into carnivorous animals. The body type was probably mediated by a supergene complex similar in principle to those found in butterfly mimicry, resulting in discrete morphs with a lack of intermediate types. Examination of the literature suggests the morph adopted was that of the major natural predator of the geographical area, leading to werewolves in Northern Europe, were-bears in Scandinavia, and were-tigers in India. Some cases have been reported of werewolves becoming vampires after death, suggesting either concurrent infection, or evolution in progress.

I was driving back from town when I saw police cars lined up along the road. I slowed up and yelled out the window.

"Need a doctor?"

My deputy friend Fred flagged me in behind a patrol car. "Remember the wimp who accused the big guy of being dead?"

He led me through a swarm of cops, down the gully to the creek.

Weems lay with his arm dangling in the creek. His wrist had been slashed, and he had bled to death.

"Not much blood," I finally commented. "It usually gets all over when someone exsanguinates."

"Washed away downstream," the sheriff said. "They always have to come on my territory to kill themselves. How long would you say he's been dead?"

The body was cold. Rigor mortis was complete but not yet passing off. I estimated 20 hours, maybe less allowing for the cold.

"Damned suicides," the sheriff muttered. "Big goddam nuisance." I agreed, and we all stood around for a few minutes swapping gross-out stories.

Then I sped home, parked the car, and walked over to the lab. It was dusk when I arrived.

Marlowe was in an elated mood. "We've started on the last draft of the article. We'll submit simultaneously to *Science* and *Nature*. Well, Mae, start working up an appetite because I hear they have great food at the Nobel awards."

I stomped past him to Auger's bedroom. Auger was lying on his bed, absolutely straight, like a corpse already laid out. As I stood there, clenching my fists, he awoke and sat up.

"Well, Dr. Sanger. To what do I owe the honor of—"

"You killed him."

"Whom?"

Oh, he could be suave.

"You were clever making it look like suicide. The cops have swallowed it."

He gave me his most charming smile, not realizing how his long teeth spoiled the effect. "I had no alternative. The man was our enemy. He convinced the Foundation to revoke our funding."

"His death won't get the grant back, Auger. You just killed him out of spite."

He laid a cold hand on my arm. "Calm down. By next week we'll all be famous. You won't have to take that cheap job in New York. You'll be the most pre-eminent witchdoctor in America."

"You're making me sick." I wrenched my arm away and walked out. "Goodbye, Kevin. It was swell while it lasted. Leave my

name off the article. I want to forget that any of this happened."

Marlowe had a hurt-little-boy look on his face. "But you can't just leave."

"Watch me," I muttered.

It was pitch black already, but I'd walked it a dozen times. When my feet felt asphalt instead of gravel, I turned right and headed uphill. A passing car lit up the road, and I moved to the side. The tail-lights dwindled in the distance, and in their faint afterglow I saw a tall figure come from the driveway.

Auger.

Following me.

Then it was black again. I saw two eyes, shining like a deer's, only red. They were all I could see: the stars above, and two red eyes. They stared right at me, the nightsight of the predator.

Auger spoke softly, his voice carrying in the stillness.

"It won't hurt. You know you want it."

I panicked and started running, going by the sound of my feet on the blacktop, my hands outstretched as I ran blind. My heart was pounding with fear and cold sweat poured down my body, but the supercharge of adrenalin kept me going.

I saw the glimmer of light on the mailbox. I could turn down the driveway, run the quarter mile to my home. Home, light, safety. . . .

Something cut off the glow of the mailbox; and I knew it was Auger, in front of me now, blocking the driveway. Six feet above the ground, two red eyes.

I swerved and plunged into the forest. Branches whipped against my face and caught in my clothes and hair. I tripped and fell in the stream, got up and kept running.

Hands caught me from behind and pulled me against a body, invisible in the dark. I was conscious of an inhumanly strong grip, and a coat smelling of wool and chemicals. I started pounding and flailing, but he ignored my blows.

He caught my hands and held them in one ice-like hand.

"Don't fight it," he whispered. "You'll enjoy it."

I felt his breath on my neck, and tried to scream, but I couldn't. I was too scared.

"This can't be happening to me," I thought. "Not me."

The bite was sharp and painful, followed by a warm sensation as my blood welled up through the punctures. I started struggling again but he was oblivious to everything but the blood he was greedily sucking in.

My mind went clinical on me. Two pints equals 15% blood volume. Moderate shock will set in. I could feel the symptoms start. He's killing me.

My knees gave out and I sank to the ground, Auger still drinking from my left jugular. Over the roaring in my ears I could hear my gasping breath and the vampire's gross panting and slobbering. I was too weak to fight anymore. The summer constellations gazed down uncaring, and became part of a light show as lack of oxygen brought hallucinations, and a strange feeling of euphoria.

The dying started to feel good.

CONCLUSIONS. Throughout history the vampire has been maligned as a villain and demon. Now that the etiology of the condition is understood, there is no reason why the vampire cannot take his place as a functioning member of society. With prescription availability of blood, the disease will be limited to present victims. Under these conditions it need not even be classified as contagious.

I woke up under an oak tree. A spider had used my left arm to anchor its web, and earwigs were nesting in my hair.

"Ohhh. I must have tied one on good," I groaned, and pulled myself into a sitting position, leaning against the oak. I felt like hell. Weak, cold, splitting headache, and hungry. Never so hungry in all my life. The feeling of hunger seemed to fill every inch of my body.

Absently, I put two fingers to my wrist to take my pulse. There was none.

I reached up to check the carotid. Every movement hurt.

My heart wasn't beating.

I withdrew my hand and stared at my fingers. They were pale: dead white.

I was dead. I was a vampire. I tongued my canines and felt their new sharpness.

Auger did this to me. I remembered it all, and felt nauseated. He'd be in the lab.

And blood. They had blood there. Whole refrigerators full. Rabbit blood. Rat blood.

Human blood.

§ § §

The new moon is still a sliver in the sky, but I can see in the dark now. A deer crosses my path and freezes in terror until I

pass. As I approach the house I can hear Marlowe typing the article. The damned article.

It will even be possible, through a controlled infection of Pseudobacteria augeria, to conquer death, allowing us to revive and preserve indefinitely great minds and

"Kevin. Get me some blood. Quick, before I bite you."

I clutch at a chair to control myself. When I look down, I see that my new vampiric strength has crushed the hard plastic.

Marlowe tremulously hands me a liter of O-negative. I gulp it down. It's cold, cramping my stomach.

"More."

It takes six liters before I can look at Marlowe without wanting to attack him. Then I clean up some, comb my hair, cover my filthy clothes with a lab coat, and slip a filled syringe into the pocket.

"Where is he, Kevin?"

"You're alive, Mae, that's what counts. Let's not—"

"He sucked me damn near dry. Where is he?"

"It didn't hurt you. He said it wouldn't—"

I grab his arm, and he flinches at the touch. "Feel it, Kevin, dead flesh. Is a Nobel going to keep either of us warm at night?"

"Add this to the conclusion, Kevin: 'Where there is no longer any death, murder must be redefined.' Welcome back, Dr. Sanger."

Auger stands in the lab doorway. I realize that I'm shaking.

He can't hurt me now, I repeat over and over. But I want to flee. Or else cry.

"Refrigerated blood is nothing. Wait until you've drunk warm, pulsing, living blood."

"Shut up," I whisper.

"And the power. The strength. You've always admired strength. You'll enjoy being a vampire, Dr. Sanger."

"No. No, I won't become powercrazy. I won't kill. I'm trained to save, to heal . . . I won't be like you!"

He laughs.

"Biology isn't destiny!" I scream.

He laughs more. I almost don't blame him.

"I thought we'd give you a chance. All right, Kevin, stake her."

I spin around. Marlowe has a wooden stake and a mallet, but he's vacillating, as usual. I pick him up and toss him to the floor before Auger.

Auger curses and snatches up the stake.

"Am I to assume this won't hurt either?" I ask.

"I've always admired the late doctor's resilient sense of humor," he says.

I pull the syringe from my pocket, duck in close, ram it into his side and push the plunger.

"Admire that—20 cc of tetracycline."

He roars and throws a table at me. I duck, and it crashes into a shelf of chemicals.

"You're cured, Auger. I've killed those little bugs, the ones that are keeping you alive."

He picks up a 200 pound spectrometer and tosses it at me. It bowls me into the cages, liberating a half dozen specimens. Vampire rabbits scurry about underfoot. I get up and dust myself off.

"Temper, temper. That's Foundation equipment."

Marlowe watches dumbfounded as Auger throws the gas chromatograph at me. It shatters on the floor, sparks igniting the spilled chemicals. A brisk fire begins, punctuated by explosions of bottled reagents.

Auger closes in and grabs me, but this time I push him back, pick up the wooden stake, and shove it into his heart.

He looks surprised.

"Why me?" he asks, and dies again.

"Kevin. Come on. The place is burning up."

"Get away from me," he yells. "Don't touch me, vampire!" He pulls open his shirt to show a cross on a chain.

"Don't be stupid, Kevin."

The fire has reached the chemical stockroom. I run for the window, and plunge through in a cloud of glass. The lab behind me explodes.

Marlowe's screams die out.

§ § §

Charred paper blows away as heated air rushes out the shattered windows. The plastic on the typewriter melts and runs, laying bare the sparking wires inside. The metal letters writhe and bend and wrap around each other, and then melt into an indistinguishable lump.

§ § §

I go home and clean up, and get back in time to watch the firemen. Not much is left of the old farmhouse.

"I'm a physician. Can I help?"

"They're beyond help, Mae." The fire chief remembers me from 4H. "Think you could identify the bodies?"

They've covered them with yellow plastic blankets, two gross, body-shaped chunks of charred meat. The fire chief looks at me sympathetically.

"I guess their own mothers wouldn't know them . . . you're pale, Mae. Johnny, you better walk her home."

A husky young fireman takes my arm and steers me up the path, away from the lights and smoke.

"They were scientists?" he asks. "What were they doing in there?"

"Working on things man was not meant to know," I say. He doesn't recognize the quote.

I stare sideways at my escort.

He's young and strong and healthy.

He won't miss a pint at all.

INTO THE COLD BLACKNESS OF TYPE

A Bussard free-hydrogen rammer,
When asked if his job possessed glamour,
Started gaily to tell
How he'd crashed into Hell—
It's in hardback as *Lucifer's Hammer*.

—John M. Ford

FIRST TIME

When attempting your first trip through time,
There are three rules considered as prime:
Step into the box,
Secure all the locks,
And remember to insert a dime.

—Jeffrey J. Haas

A FIRST SOLUTION TO THE VOYAGE OF THE BAGEL

(from page 28)

Leo established his curious theorem by way of elementary graph theory. He placed n spots on the napkin to represent any group of n people. Each handshake can now be represented by a line connecting the two spots. Misanthropic spots will have no lines. Some spots will have only one line, and others will have many. Some pairs of spots will be multiply connected by many lines, should the same pair of people be introduced to each other over and over again. Leo's theorem is clearly equivalent to the graph theory assertion that no matter how many lines are drawn, the total number of spots with an odd number of lines will be even.

Here's one proof. Call the number of lines emanating from any point the "score" for that point. A point with an even score is an "even point," and a point with an odd score is an "odd point." Since every line joins two points, the total score for *all* the points must be even.

The total score for all the even points must also be even because any number, multiplied by an even number, gives an even product. If we now subtract this score from the even total score, we get the total score of all the odd points. Since any even number taken from an even number leaves an even number, we conclude that the total score of the odd points is even.

One final step remains. Only an even number of odd numbers can be even. Therefore the number of odd points (which we know have an even total score) must also be even. Therefore the number of persons who have shaken hands an odd number of times is even.

Ling listens carefully while Leo slowly goes through the proof. Suddenly he grins. "Your proof, my friend, has an enormous black hole in it. In fact, it's false, I've just thought of a counter-example."

"But that's impossible," snorts Leo. "The proof is airtight. There *can't* be a counter-example."

Ling proceeds to completely demolish Leo's proof. What does he do? See page 136 for the answer.

THE SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

With winter over, it's a good time to get out, and share your interest with fellow SF fans. Call a nearby con today; it doesn't cost much. For a longer list of cons, send an addressed, stamped envelope to me at 9909 Good Luck Rd., T2, Lanham MD 20801. If you have any problems reaching these conventions at these numbers—or if you just want more information—give me a call at (301) 794-7718. A note on telephone etiquette: it's not nice to call before 10 AM, after 10 PM (the called party's time, not yours)—or to call collect.

- Dubuqon**, Apr. 28-30, 1978. Dubuque IA. A.J. Budrys. (319) 556-0906
Kubla Khan, May 5-7, \$8.50, Nashville TN. Guest of Honor: Theodore Sturgeon. Masquerade, Kazoo band. (615) 832-8402
V-Con, May 26-28, \$8, Vancouver, B.C. Van Vogt. (604) 263-9969
DisClave, May 26-28, Washington DC. The East Coast's big little con. Stay for the Monday "dead dog." (703) 920-6087
X-Con, June 2-4, \$8, Milwaukee WI. 2nd annual. (414) 961-2212
DeepSouthCon, June 2-4, \$7.50, Atlanta GA. The traditional Southern con. Long on hospitality and art. (404) 366-3860
MidWestCon, June 25-27, Cincinnati OH. One of the oldest cons. The essence of the Midwest relaxacon. (513) 791-4670
WesterCon, July 1-4, \$7, Los Angeles CA. The big Western con. A good warmup for IguanaCon this year. (213) 838-0297
Conebulus, July 7-9, \$6, Syracuse NY. Ben Bova. (315) 471-7003
UniCon, July 7-9, Washington DC. Now well-established as an East Coast institution, in a major hotel. (301) 794-7374
August Party, August 4-6, \$5, Washington DC. Star Trek con, but more fannish than most. No stars, etc. (301) 277-1354
SeaCon, August 23-27, 1979, \$7.50, Brighton, England. 37th World SF Con. Write: Pussywillows, Off Wheeler Lane, Natick MA 01760.
NorthAmericaCon, Labor Day weekend 1979, Louisville KY. River cruise. Interim con while the WorldCon's abroad. (502) 636-5340

THE MAN WHO TOOK THE FIFTH

by Michael Schimmel



The author entered the U.S. Air Force in 1961, planning to live in fame, or go down in flame. After eight years, no one had asked him to do either, so he left to return to college. Now 36, he is a legal assistant with the State of Pennsylvania and has recently taken up jogging and writing. He likes to play poker, which accounts for the setting of this, his first published story.

"Christopher Lee did one without makeup."

"I saw it. He used a set of fangs."

"They weren't fangs, just enlarged canines; besides, I think those were his real teeth."

"You mean—"

"Yup! He really is a vampire; he only makes movies to keep off welfare. Vampires are a proud race, you know."

"That's only in Europe. Here in New York, they go on welfare on the grounds they can't work during the day."

"Can't you get them a job driving taxis at night?"

"They won't do it. They're afraid of the weirdos on the streets at night."

Carmine drained the last drops from his beer and set the bottle on the floor by his feet. "Does anyone want to bet before the Smithsonian comes over and declares this pot an historical exhibit?"

Ed leaned back in his chair and drew on his empty pipe. "You know, it's interesting about the canines having such power to frighten us. I have a theory it's a racial memory."

"Does anybody's racial memory tell them whose bet it is?"

Jim tossed a quarter on the pile. "Two bits on the cowboys. Then it's agreed. Tracy did the best Jekyll and Hyde."

I saw his raise. "He played it as the allegory Stevenson intended."

"How do you know that was what Stevenson originally intended?"

Everybody turned to look at Allen. This was the first time all evening he had said anything outside of the card game. I think everybody was relieved to see him coming out of his slump.

"I think it's pretty obvious," I said, "*Dr. Jekyll and Mr. Hyde* is meant to represent the dual nature of man. You do believe in the darker side of man, don't you?"

Allen lit another cigarette and leaned back in his chair. "I spent the afternoon treating an 82-year-old woman who had hair spray sprayed in her eyes and her nose broken by two 15-year-old kids who stole her Social Security check. Do you want to ask me again if I believe in the darker side of man?"

As always, Allen had succeeded in embarrassing everybody. We were embarrassed for the pain he encountered daily. We were embarrassed for the money he lost at poker, which we all knew he could not afford. But mostly, we were embarrassed by the fact that of the five men who had started this game almost 20 years

ago, Allen was the only one who still believed in what he was doing.

Carmine was an assemblyman who spent his mornings paying off old favors and his afternoons begging new ones. Ed was a sociologist who wrote reports for the city that he knew were never read. Jim was a welfare administrator whose job was to keep his caseworkers so busy they wouldn't notice they were making less than some of their clients. I was a writer for a television news program who scanned the news daily, hoping to find a human interest story to offset the murders, rapes, and muggings the audience tuned in to hear. The five of us played poker every Friday night behind my apartment door with its three security locks, drinking too much, playing too little, and holding a wake for our youth.

Allen had been the only one to follow the dreams we had laid down over a fraternity house poker table many years ago. On finishing his internship, he had decided to go to work for the city, operating a mobile health care unit that ministered to shut-ins. He was like a man trying to cure cancer with a Band-aid, but the job hadn't broken him yet, and I don't think it ever could. I think we all waited in fear for the day some junkie thinking he had drugs would try to kill him. We all felt sorry for Allen, we all feared for him, but mostly, we all respected and admired him.

"That's what Stevenson was saying—there's an evil side to mankind, but we—society keep it suppressed." Carmine had paid the ultimate compliment—he had joined in a conversation that was not about cards. Allen looked excited for the first time I can remember. "But you see, that's it! I don't believe *Dr. Jekyll and Mr. Hyde* is a simple allegory—I believe it's a proven medical fact."

"You mean like the use of tranquilizers in prisons to suppress aggression," I said.

"That's the right track, but instead of suppressing aggression, I'm talking about creating it."

Jim broke a potato chip in the cheese dip and looked at it in disgust. "We need more aggression like we need more cigarette ashes in this dip. Can't anyone hit an ash tray in this place?"

"Now wait a minute, don't knock aggression too fast—it can be useful." Coming from Allen, that sounded like George Meany saying we needed more products from Taiwan.

"Look, I'm talking about channeled aggression. We've all heard stories of some 90-lb. woman lifting up a car to free her child."

"Sure, we've all heard those stories," I said, "But how many can be authenticated—who's ever actually seen it?"

"I have." It wasn't Allen's words so much as the tone of his voice that made all eyes turn towards him. He sounded like Percival saying he's just seen the Holy Grail.

"I saw the very incident I just described—a 90-lb. woman lifting a car to free her daughter. I can vouch for the fact those stories are true. I even took a sample of the woman's blood."

"What did it show?" Ed asked.

"Nothing," Allen replied. "It was just blood, only richer in all the elements than any blood I've ever seen before. In her panic, the woman made an impossible demand on her body, and the body responded."

"Okay," I replied. "I'll admit it's possible, but why are those incidents so isolated?"

"Because in most cases the brain knows, or rather thinks it knows the request is impossible and denies it. Now if a chemical could be introduced into the system that would short-circuit the portion of the brain in which fear originates, then the outside stimulus, panic, fear, whatever, would cause the body to provide the necessary energy to meet the crisis. That's the kind of aggression I'm talking about—a reserve of created power that would automatically come into play."

"Wait a minute," Ed said, "I was just reading an article by Müller on that." Ed was always "just reading" an article by someone. We all believed he made half of them up, but when you challenged him, he attacked with such confidence, we were afraid to call his bluff.

"Who the Hell is Müller?" Good old Carmine!

"He's a German psychologist."

"No kidding! I thought he was a tap-dancing gynecologist from Newark."

"That's Miller," I joined in. "He changed his name during the war."

"Ah, those sneaky Krauts."

"If Abbott and Costello are through? Müller did some of those early experiments with mice. You know, the one where they isolated the portion of the brain that is responsible for aggression and placed it in a cage with a cat."

"What happened?"

"The mouse came out kicking tails and taking names. Is that the kind of thing you're talking about, Allen?"

"That's close, but I think the fear mechanism and the cause of aggression are one and the same, and a chemical by-pass can be induced into the human system that can change that fear into power."

"That's okay," I said, "But what value would it be?"

"Look, I deal with the most frightened group of people in the world—the elderly. They're frightened to leave their houses to go to a doctor. They're frightened they may become too ill to go to a bank, so they carry all their money on them, and that makes them a cinch for muggers. The elderly are prisoners in this city; they're too frightened to go out and get a little fresh air."

Jim stacked his chips. "I'm afraid going out for fresh air in this town won't improve anybody's health."

"No, that's why we leave them in housing projects, as an easy prey to any junk hype who feels he needs some old lady's lousy \$169.50 Social Security check for smack worse than she does for dog food to survive for another month."

Ed chewed on his empty pipe. "I have a theory about those housing projects—"

"Are we going to play cards or bullshit all night?" Carmine's sense of respect had its limits.

At four o'clock in the morning, I surveyed the wreckage of my apartment and decided even a token attempt to clean up now required more strength than I had. Somewhere in the night, tires squealed, and from a distance, I heard a sound that could have been a shot. I checked the three security locks on my door and went to bed.

The first report came across the wire service about six days later. I wish I could say I recognized it right away, but at the time, it had been only an anecdote to take the pressure off the more morbid stories of the day. Two junkies had tried to rob a 76-year-old woman. When the smoke cleared, the junkies had a total of two broken legs, five fractured ribs, and a broken collarbone.

The second story came in on a Sunday and I didn't see it until Monday morning. This time, I recognized it. Two men in their 80's were playing bocce on a Sunday afternoon when a motorcycle gang began to harass them. The luckier ones ended up in the East River with their bikes. The two old men claimed they couldn't remember how it happened. One minute the kids were coming at them, and the next thing they knew, they were making like John the Baptist to a group of reluctant converts. The men had been treated for bruises they had picked up in the scuffle. Their doc-

tor's name was listed at the bottom of the report, but I didn't have to read it.

"You're nuts!"

"Easy, Carmine. I only called you because the latest incident took place in your district."

"What incident? Some kid tries to rip off an old lady's purse and she smacks him up along the side of the head with a garbage can lid. Is that what you call an incident?"

"The woman was 78 years old!"

"So she got lucky."

"She dragged the kid by the hair to the police station to press charges."

"So what's your point?"

"My point is she could have seriously hurt the kid."

"For crying out loud, you're still mad they shot King Kong without reading him his rights first. Tomorrow the kid's mother is going to be in here to see me with a picture of the kid in his Communion suit with a rosary wrapped around his hand. Look, I know that kid—he's 6'1", weighs 215, and if he has anything wrapped around his hands these days, it's a bicycle chain. What am I supposed to do—tell the judge the kid had the bad taste to pick on an old lady who had just been treated by a mad humanitarian?"

"Then, you believe it?"

"Hell, no, I don't believe it. At least I think I don't. Why don't you talk to Allen?"

"I tried to after he missed the game last Friday; his answering service says he's out every time I call. He's in your district this week; make up some excuse to stop him from operating the health care van."

"Sure, that would make me popular as Hell, wouldn't it! Look, if you're so sure Allen is doing something wrong, you stop him—but don't ever call me again."

"Look, Carmine!"

"Yeah."

"Eight thirty, Friday night."

"Check."

"Check."

"For crying out loud, you got three aces showing—what do you mean, check?"

Jim tossed a dollar in the pot. "Sorry, I was thinking of something else—a buck on the bullets. I was just thinking it seemed

funny all the people I saw on the street tonight coming over here—a lot of older folks, too.”

Ed saw Jim’s raise. “People attract people—it’s as simple as that. The more people on the streets, the more reluctant the freaks are to come out—it just may be a new trend.”

Carmine folded. “It’s mostly the older folks the muggers are afraid of. City Hall is getting complaints from lawyers every hour that some decoy team beat up a client of theirs.”

I pushed back my chair and surveyed the table. “Well, we all know who’s responsible.” No one looked at the empty chair. “The question is—what are we going to do about it?”

“Well, I know what I’m doing,” Jim said, “I’m bringing my mother down from Albany next week for one of Allen’s vitamin shots.”

“You’re kidding!”

“No, I’m not. Look, my mother lives all alone in that big house. A couple of months ago, I bought her a can of Mace. Last week, she mistook it for hair spray and knocked herself out for over an hour. I figure I have to give her any edge I can.”

“Do you know what came over the wire today?” I said, “The patients took over a rest home in Jersey. They tied the attendants to the beds and fed them only cereal. They weren’t allowed up to go to the bathroom and had to remain in their own filth until the police arrived.”

“Are they going to prosecute?”

“No. It seems the conditions were pretty bad there in the first place. The patients were only paying back in kind for their own treatment. What bothers me is that someone has got to tie Allen in with these incidents sooner or later.”

Carmine gave me a sharp look. “Then, you don’t think what Allen is doing is wrong?”

I shrugged. “Who knows from wrong anymore? I only know someday someone is going to put two and two together and that’s the end of Allen and his program. He has at most a week before they get him.”

“I was reading an article today.” Carmine threw his cards on the table, but Ed continued. “I was reading an article today on the hot meal program for senior citizens. Meals will be prepared for senior citizens all over the city. It will reach thousands. Well, it seems they need volunteers to package and deliver the food. I talked to Allen today; his formula will break down to a powder. I start doing volunteer work for three hours on Monday. I think

that should get Allen off the hook."

Jim pulled a notebook and pen from his jacket. "Do you have the number for the volunteers?"

Ed pulled three pieces of paper from his wallet. "I figured I could count on you guys. Here's the address and your hours. I'm picking up the chemical from Allen tomorrow."

Carmine was looking at Ed like a man who had just discovered that old chair his grandmother had willed him was a Chippendale.

Ed turned to Carmine. "Carmine, may I ask you something?"

"Sure, Ed—what?"

"Are you going to deal those cards before the numbers wear off?"

I think that was the first damn poker game I enjoyed in 20 years.



SUN BURNT

In explaining their marital strife,
A Mercurian flame-creature's wife
Snapped heatedly,
"It's easy to see!
The fire won't go out of my life!"

—S. Dale





A CHILD OF PENZANCE
by Tony Sarowitz

Mr. Sarowitz is another member of the Oregon colony of SF writers. Now 26, he's been writing seriously for about two years, with his first three sales during the past three months. He likes to do carpentry and watch films, and hates doing short biographical notes, such as this one.

Ray watched the girl on the window seat. She was four years old. Her hair was light brown, long and tousled about her thin face. She was perfectly motionless, unnaturally so, her eyes staring through the evening shadows at nothing, her mouth vacantly relaxed. Her name was Robin, a name which had seemed to fit her in other, happier times.

When he couldn't bear the sight any longer, couldn't stand his own ineffectuality, he went into the bedroom. He looked through the comp listings for the psychiatric aid number and punched it into the phone on the wall.

The screen lit, but remained a milky blank. A soothing male voice said, "Oregon Central Comp. How can I help?"

"I don't know," he said. "I think I want to kill myself."

"What's the problem?"

He hesitated. "There was a fire a few nights ago," he said. "No, I should probably start before that. When I—"

"That's not what I mean," the computer said. "You want to kill yourself. So why are you calling? What's the problem?"

"Oh." He touched his tongue to his lips. "I suppose it's that I don't want to die."

A sound very much like a sigh came from the phone. "Well, that's a tidy little paradox you've got there. All right, Mr. Hart. I've run down your voiceprint and I have your records now. Suppose I tell you all about it?" It didn't wait for an answer.

"You are Raymond Hart, biological age twenty-seven, chronological age four. You're a clone of Dr. Morris Seltzer, brought up by a Space Commission research team to complete Seltzer's work in FTL trajectories. Let's see. . . . They grew you in forty-one days, slapped you into the scramble tanks for a diet of math and logic, then let you at the equations. You had limited success, hmm, surprisingly good, though, for the techniques they were using. Then there was another month in the tanks, social education this time. They set up a standard friendship contract for you with Diane and Ed Horning, gave you a modest salary as

a research consultant, and showed you to the door. I haven't developed the specifics yet, but it shouldn't be hard to do. Basically, you feel unable to cope with human situations, yet equally unable to entirely detach yourself from people. The heartbreak of trying to deal with your peers is exceeded only by the desolation of your solitude. How am I doing so far?"

"How long did it take me to dress this morning?" Ray said.

"Do you want it in nanoseconds? Seriously, Mr. Hart, Ray, I get calls like this from 41.44 percent of all cloned humans sometime in their first five years. Part of the social education program includes a suggestion to place this call when suicide has become a genuine possibility, and still the successful suicide rate for fourth year clones is much too high. The standard habilitation programs are simply inadequate. They're working on it, although that's small consolation to you, I know."

"Listen," he said, "Robin Horning is sitting in the next room. She saw her parents burn to death in a fire two nights ago. No one else who had a friendship contract with the Hornings would take her, and the only reason I had a contract was because the Space Commission paid Ed and Diane to keep up their part of it."

"Not so. The Commission only pays during the first two years of such a contract. After that, it's up to the individuals. The Hornings must have liked you quite a bit."

That was the last thing he had expected to hear, but it only substituted a new pain for an old one. "That doesn't help Robin," he said. "She just sits there. She eats when I tell her to, stares at the triddy when I turn it on, and the rest of the time she just sits."

"Look, Ray. No one else would accept Robin. This culture doesn't exactly breed for responsibility. Why did you take her on?"

"I—" He couldn't answer. All that came to mind was a memory of a summer afternoon, the Hornings on the lawn outside their house as he walked up. The memory was so vivid he could almost smell the flowers.

Diane waved to him and Ed glanced his way, then threw Robin high into the air. She screamed with delight as she rose, then the slo-field caught her and she drifted down as gently as dandelion fluff. Ray came up to them just as she settled to the ground.

"Again," she pleaded. "Daddy? Ray?"

Diane waved indulgently at him to go ahead, so he scooped her up and tossed her into the field with a single motion. Up she went, then seemed to hang there for a moment above his up-

turned face before the lazy descent. How must it feel, he wondered, watching her somersault through the air. How exquisite must it feel?

The computer said, "You both need someone to talk to, Ray. Why don't you give it a try?"

It was a moment before his mind could travel the road from past to present. He was not at all happy with the change. "Do you want to know what tragedy is to me?" he said. "It's a word meaning a horrible, fatal, or disastrous happening, from the Greek *tragoidia*, meaning goat song. The language component of my education was very complete. Do you understand? What do I know about loss or tragedy? What can I say to that girl? I don't have any experience to back up my words. Don't you see; *I'm no older than she is.*"

"All right," the computer said. "It seems to me that your primary need is for assurance. I might be able to help with that. Tomorrow I want you to pick up one of the therapeutic computer games put out by MC Products. It doesn't matter which one. In the meantime just keep going, and remember that there's nothing irresolvable about your situation."

"Sure," he said bitterly, "it'll all be fine. How can you know anything about me? What is there to know?"

"Why do I bother?" the computer said. "Consider this, Ray. I'm a machine. Words are direct experience to me, the closest I can get to life. At least you're human. You can grow. You can become something more than the sum of your information. You can be a personality, and I can only watch it happen. I was programmed to think that this sort of growth is desirable, but it's something that I can never possess. You think that you have it tough? You don't know anything. I'll call you tomorrow." And the connection was cut.

Ray looked at the dark screen. The computer was right; he didn't know anything. Surprisingly though, he found that he was feeling better than he had when he placed the call. Not good, but . . . better. Forty-one percent of all clones made calls just like his. He wasn't the only one.

He went back into the living room. Robin had fallen asleep sitting up, her head resting against the wall. He wondered if he should carry her to bed and risk waking her. Finally he got a blanket from the bedroom, tucked it in around her shoulders. She stirred and opened her eyes, looking past him at the deep shadows in the room. Then she snuggled down to a more comfortable posi-

tion and was asleep.

§ § §

The platform was packed with children, children with their parents, children alone, children with their entire co-op groups in tow, all pushing and shoving each other by the clear platform wall to get a position near the door or a glimpse of the train coming in. The train whooshed into the station, chasing its shadow from the east, then glided to a stop and settled on the track. The doors opened and the children poured through the openings like locusts after honey.

Ray waited on the walkway below the platform, Robin's hand held tightly in his, until all but the last stragglers were loaded. Then he went up the stairs and urged her into the car. A representative of the Roseburg Children's Environments Company took her hand.

"Don't worry about a thing," she said. "She has her packet and ID tags? Good." Then to Robin, "We have a twentieth century junkyard today. Wrecked cars, wood scraps. You could build a house. Would you like that?" Robin nodded, refusing to smile or look up from the floor. The woman turned back to Ray.

"Her first time?" she said. "Everything will be fine. It's practically impossible for them to hurt themselves. Just be back at four-thirty to pick her up. They usually get upset if they have to wait. Okay? Four-thirty?"

He nodded and stepped away from the car. The doors closed and the windows silvered as the stasis field was thrown on. The car hissed and rose slightly on the track, and then it was gone, accelerating into the distance as fast as his eyes could follow.

Most of the parents had already left the platform, and by the time he got to the bottom of the stairs, he was entirely alone. It was an hour before the shops would open, before the day would truly begin, and the smoothly machined cobblestone walkways wound empty between the lawns and the houses. He started to walk slowly, savoring the quiet and solitude, letting his feet take him where they would. Why not? He might as well let the walkways tell him who he was and where he should go. Without a destination, every direction was as good as the other. He could travel at random for a month or more and never feel that he had wandered into a different world.

Flamboyant embellishment was the building fashion this season. There were painted facades, Japanese rock gardens studded with bonsai, tiny fountained courtyards, elaborate grillwork

across the windows of second-story cupolas. Everywhere he looked there was something new, and so he didn't notice the way he had come until he stood before the charred and gutted ruin.

The frame of the house was still standing, the blackened beams rising over the debris like an unsuccessful scarecrow. There was nothing for him here. He felt nothing, thought nothing, but he couldn't stop looking, couldn't turn and go on his way.

A man was stumbling over the burned-out wreckage, a pack stuffed with holo equipment slung across the hump of his follow drone. "Beautiful, isn't it?" he called, and went on artistically sizing up the best placement points for his cameras.

Ray said nothing. Beautiful? he thought. Bue-te-ful? He couldn't make sense out of the word. It was just sounds stuck together, syllables in a line. He smiled at the holographer and walked away, forgetting the house before he turned the corner.

An hour later he was home, carrying the package he had picked up at the automart. The phone was beeping. He dropped the box on the bed and hit the receive button.

It was Oregon Central Comp. "Morning, Ray. Did you pick up the game yet?"

"It's on the bed." A coffee cup was sitting in the wall niche where he had forgotten it earlier that morning, the water long since boiled away. He tested the handle gingerly with one finger. "I haven't opened it yet."

"Good. I wanted you to route the comp connection through this department. I'd like to supervise. Are you ready to start?"

"In a minute."

The cup was cool. He moved it to the desk top, balancing it on a cassette of unfinished equations that the lab had sent over three days ago. He felt excited and a bit apprehensive, not knowing what to expect from the game. He wanted to delay, and he wanted to start immediately, so he compromised by not thinking about it at all.

"I was going over our conversation in bed last night," he said. "You contradicted yourself. How can you feel badly over your lack of direct experience when feelings are direct experience?"

"Oh, that." The computer was silent for a moment. "Well to be honest, I lied. I thought it might do you good to unload some of that self-pity on someone else. You're perfectly right—I'm just a machine without any analog of emotions. No hard feelings?"

"No, of course not." In a way, it was a relief. "What should I call you, conversationally I mean?"

"Oh, any old thing will do. Babbage's Folly? No, let's just make it OC. Have you opened the box yet?"

Ray looked around the room for one more desperate moment, then sat on the bed beside the package. "I'm doing it now," he said. He tore off the outer wrapping and ripped off the cellophane, shaking the tatters of flimsy gloss from his fingertips.

There was no title on the box, no description, no lettering. There was only a picture of a spaceship, an impossibly, impractically needle-thin silver rocket set against a background of sparkling black velvet. He liked the look of it; it was both tempting and remote.

"There're a few things you should know before we start," OC said. "The game operates on a reciprocal feedback principle. It sets up a situation and puts you in a certain frame of mind. Your feelings and reactions then affect the course of the game, sometimes drastically. Don't make the mistake of thinking that it's simple entertainment. It may be very enjoyable at certain times and quite disturbing a moment later. In some ways it's dangerously realistic. I know one woman who believes that she's been captaining a spaceship for the past six months. My inputs tell me that she's in the observation ward at Portland General, babbling to herself. You're not listening."

"Sure. You were saying it's dangerous." He had opened the box. There were two items inside: a fanciful plastic helmet covered with decals and topped with a feathered crest, and a heavy black box with two leads, one connected to the helmet and the other ending in a comp tap.

"Actually, I'm not sure that 'dangerous' is the right word. A person's not really damaged if they begin to prefer the game world to our more pedestrian reality. For all I know, they may be right, and I may be talking to myself. A computer's lot is not an easy one, Ray."

He was impatient now. "Let's start," he said. He plugged the comp tap into the socket by the phone and sprawled across the bed.

"Ready?" said OC.

Ray picked up the helmet and put it on.

He was Commodore Raymond Hart, in command of the Federation Starship *Persephone* and the eighteenth section squadron. He rubbed his palms along the armrests of his captain's chair; the covering felt like real leather, skin against his skin. He breathed the air and found it pure, clean, with only the faintest trace of

perfume.

"Maintain this range," he told the navigation officer, and the man manipulated his instruments, obviously making a show of diligence for his commander. Ray tried for a moment to feel the bed mattress beneath him and the helmet on his head. They were there. When he concentrated, the control room seemed to blur, and he could see the outlines of his bedroom furniture sticking out of the floor and half-embedded in the flight instruments. But there was no need to see it, no reason not to accept the illusion.

Princess Shaya ran into the control room. Even in haste there was nothing sudden about her; every motion was perfect and round. Her fine black hair waved across her white cheeks and flowed around her shoulders. "Commodore Hart," she said, "they told me that bar-Deth's ship—"

"On the seventh quadrant screen, Milady," Ray said, "eighty thousand kilometers out." There was something disturbingly familiar about her face, the pixie prettiness of it, the shape of her mouth.

"Then you have him?" she said. "You can stop him from escaping with the plans for the Q-bomb?"

"That remains to be seen." He turned to the navigator. "Plot a tight parabolic, x cubed, seventeen gees, mark 34.02.07. On my signal." Then to the Princess, "Their ship is fast and heavily armed. We don't know yet just who has whom." But he did know. He knew his ship and his crew. And he knew himself. He was Raymond Hart, a man with a long history of success and a potentially brilliant future. He had been one of the best students at the Academy, and he was one of the best chief officers in the fleet. He could cast his memory back over incredible spans of time: seven years, ten, twenty, it was nothing. And if the history, the characterization, seemed a bit thin and flimsy, well, he could overlook that. He knew everything he needed to for this time and this place.

He gave the signal and the chase began. It was dangerous, of course, exciting and difficult, and seemed to go on for hours. There were dozens of minor incidents, small adventures to complicate the drama. It satisfied him beyond expression. He was complete, fused in partnership with the machine and the crew, in perfect harmony with his world.

Then it was over and bar-Deth's ship tumbled helplessly through the vacuum. Ray hesitated for a moment, deciding whether or not to risk a boarding attempt, then raised the enemy

on laser com.

"This is Commodore Raymond Hart calling from the *Persephone*. Do you read, bar-Deth? Will you pledge surrender?"

The incoming signal was laden with static. "I read, Commodore," bar-Deth said. "I read, but I do not surrender. I will not turn the Q-bomb over to your emperor so that he can further his rule of tyranny. I have struggled to free the people of the Galaxy from fear, and I will not bend to fear myself."

Princess Shaya gripped his arm, and he turned to her. She was smiling. "Do what you feel you must, Commodore," she said. "My father lords it over the Galaxy, but he does not rule me."

He looked at each of the officers in the control room. They were with him. Whatever he should decide would be the right decision for them. And for himself?

"There's been a change in the situation, bar-Deth," he said. "Name your destination. We'll tow you in." And the officers in the control room were on their feet, cheering, and Princess Shaya leaned over and kissed him on the cheek.

Then the room began to fill with white mist. The walls grew hazy, and as the fog moved in, the officers and finally the Princess disappeared. He could see nothing. No, it was clear. He was sitting in his bed, staring at the far wall, and OC's voice was calling, "Four-fifteen, Ray. It's time to get up. Four-fifteen."

He shut his eyes and turned his face away from the sound. "Not yet. A few minutes more." He couldn't leave now. Bar-Deth would never wait for him. He and Shaya would go off—

He felt a sharp pain on his scalp. "Get up, Ray. Now! or I'll feed more voltage through that cap."

He dragged the helmet from his head and stood uncertainly. "What time. . . ?"

"Four-seventeen now. You have a little more than twelve minutes to get Robin. You've been in the game for almost ten hours. That's enough for one day."

He felt drugged, and his thoughts came slow and unwieldy. Shaya—no, Robin—was at the station. Would be. . . . He could leave her with the Roseburg people; they took in children. No, not what the Commodore would do. "Full speed ahead," he mumbled, and aimed himself at the door.

§ § §

The train was just pulling in when he got to the platform. He waited until it had unloaded and the crowds had thinned out, then went to look for Robin. She was standing on the platform

near the front of the train, her hand in the hand of a uniformed Roseburg attendant. Ray walked up to them, then stood there, wondering what came next. The attendant made no move to release the girl.

"Are you Robin's parent?" the attendant said.

Ray nodded and tried to adopt a respectably parental tone. "Is there any problem?"

The attendant let Robin's hand go; it fell to her side like a dead thing. "We wish to bring Robin's behavior to your attention," he said formally, as if reciting a formula learned by rote. "She was alarmingly withdrawn today. We feel that she must be undergoing some unusually stressful experience. We urge you to talk to her and try to find out what her difficulty is, if you haven't already done so. Are you aware of this situation?"

He couldn't speak. Her parents have died, he thought. Her parents. He could see the house, just as he had seen it that morning, the charred beams, the holographer crawling over the rubble. The attendant was beginning to look at him strangely, and he forced himself to say something, anything. "Ah, yes." He wondered if the man could see that he was trembling.

"Well, consider this official notice then," the attendant said. His tone became more personal. "She wouldn't even play on the wrecked cars. All the kids love the cars." He shook his head and went into the train.

Ray needed to get back to the house, back inside. He turned, and only then remembered that Robin was standing there, silent as the moon. He turned again, glancing up and down the platform in embarrassment to make sure that no one had seen, and took her arm. "Time to go," and he tugged.

She jerked away from him. "Don't you touch me," she said with a fury so cold it seemed to freeze him where he stood. "Don't ever touch me."

They regarded each other in silence like fighters waiting for the bell. Then he said, "Come on, then. Time to go." He took a step toward the stairs, and she took a step. They started down the street, strangers with the same destination.

He left her in the kitchen with a bowl of rice and vegetables, and went into the bedroom. The game helmet was lying on the bed where he had left it, still plugged into the wall. He sat beside it and slipped it on. Nothing happened. He took the helmet off and began to inspect the connections. The phone beeped.

"No more today," OC said. The voice was gentle and a little

weary, so genuine sounding that Ray had to remind himself that it was an electronic fabrication. "Why don't you spend some time with Robin? We'll give the game another try tomorrow."

Tomorrow, always tomorrow. Tomorrow he would play the game, learn to deal with himself and other people. Tomorrow it would all be clear. He stamped out of the room, furious with the computer and with Robin. He would spend time with her, but he damn well wouldn't enjoy it.

The kitchen was empty, steam curling up from the untouched bowl of food. He looked in the bathroom and the living room. There was nothing.

He went back to the bedroom. "She's gone," he said. "She went out." He felt lost and alone, and the computer seemed like no company at all.

"Go look for her," OC said.

"How do I know where she's gone?" he said. "I wouldn't even know where to start. If she wants to be alone, who am I to stop her?" He waited for a rebuke, almost hoped for one.

The computer made no reply.

He was half asleep, lying on the living room floor when she came in. She walked past him into the kitchen and sat at the table. "I'm hungry."

He dialed a meal for her, then lay back on the floor cushions and watched her eat through the doorway. She finished, dropped her plate and spoon into the disposal, and went straight to her cot in the bedroom. He was very tired, but he sat there for another half hour, trying to decide what he felt, or should feel, or wanted to feel. When he finally went to bed, he still had no idea.

The next morning he saw Robin off to Roseburg; neither of them said a word. OC was waiting on the line when he got back to the house.

"So today you join bar-Deth's rebels," the computer said. "You align yourself against the forces of repression and order. If I were a Freudian, I'd find that extremely significant."

"I'm not sure I want to play today, OC," he said. His enthusiasm for the game had evaporated during the night. He was disturbed by the thoughts he had had on the way to the station that morning. Robin had reminded him of Princess Shaya, and his memory of Shaya had reminded him of Robin. He was confused, and the game didn't seem likely to help.

"If you're not anxious to play, then think of it as therapy. It is, you know. I haven't gone to all this trouble just to amuse you."

Today I hope that—"

"Hope! What do you know about hope?"

"As much as you," the machine said, "until you try it on for size."

"Listen," he said, "the problem isn't that I don't have feelings. I feel things all the time, knottings in my chest, tremblings. A thousand uncatalogued emotions rise in me at every turn, and later I think that they must have been love, or anger, or frustration, or joy. I've felt every one of those, as well as all the others that I have words for. But I never know what they mean when they happen. I never know where they belong in my universe. I don't know what's reasonable and what's bizarre. Can the game answer this? Can it tell me what I need to know?"

"You're asking all the wrong questions," the computer said. "Only poets and lovers look for patterns in passion, ways of feeling. For the rest, it's all examples and situations. You *learn* to recognize what you feel, and what you want to feel, and what satisfies you as feeling. You learn. And yes, I think that the game might help."

"All right," he said without conviction. He sat on the bed and put the helmet on. There didn't seem to be anything else to do.

It was he and Princess Shaya. There was still a ship and a crew, but they were of no consequence. It was the two of them that mattered, he and the woman, the girl. She looked younger now than she had the first time, and her hair was brown, but that didn't seem at all strange. They were companions, friends, partners in mischief. They went on daring raids, stole secret documents from under the noses of Federation security people, took part in the great battles, laid siege to an entire planet, and through it all they were together. It made the risks seem like a game, but a very real game. Never once was he aware of the larger illusion, the bedroom, the computer hookup. To laugh at life, even a fabricated life, made it seem even more desirable and honest. If he had stopped to think about it, he might have wished that it would never end, that he could lose himself in this world, whether it was real or not.

Then it came time for the reception. The Federation was on its knees. The rebels were gathering for the final assault. And Admiral Raymond Hart and Princess Shaya, both already legends throughout the rebel Confederacy, were summoned to appear before the leaders of the rebellion.

Ray lifted the helmet off his head and stared thoughtfully at

the wall of his bedroom.

"Why did you stop just then?"

He shrugged. "That seemed to be enough this time around," he said vaguely. "I wanted to think, I guess, about Robin." He paused. "To what degree is the game responsible for my relationship with the . . . characters?"

"Virtually not at all. In general, the game only supplies a detailed framework for your mind to roam through, like a canvas of a certain size and shape. It makes suggestions, of course, through the way the action proceeds and through the range of characters it provides, but then it's up to you." There was a sound (a chuckle?) from the phone. "I was wondering how long it would take you to notice who you've made the Princess into."

"Is that how I really feel about her?" He couldn't see it, couldn't believe he so loved that sullen, willful girl.

"Think about it, Ray," OC said. "Figure it out for yourself."

So he tried to think. He pictured her dozing on the window seat, saw her looking into the shadows with oblivion in her eyes. "I don't think—" he started to say, but then he remembered another Robin, a girl spinning down through the slo-field, her hair flying and her eyes alive. He remembered how she had run up to him one Saturday morning and hugged his legs fiercely with no reason, no excuse. How could he have forgotten? How could he have remembered anything else?

He stood. "I'm going out. I need to walk around."

"It's three o'clock now, Ray. Don't forget, four-thirty—"

"I'll remember."

The Roseburg attendant was waiting with Robin at the station again. He began speaking as Ray walked up. "We've been checking the files, Mr. Hart. We understand how difficult it can be for someone to suddenly find themselves responsible to a child, especially a child who has just suffered a major trauma. Please understand that we do not wish to cast aspersions on your sincerity, or your love for Robin. Sincerity and love, however, are not enough in themselves to assure a child's welfare. Our job puts us into a position of responsibility similar to your own. We cannot stand by and allow a child to be damaged by the inexperience of his or her parents."

"What do you want?" Ray said. He couldn't make himself put the anger and hurt and fear he was feeling into his words. After all, this was the way things were supposed to be done, wasn't it? He looked at Robin, and she deliberately turned away.

"It's like this, Mr. Hart. Robin was as withdrawn today as she was yesterday. It may be just a matter of time before she opens up, but our psychologists say that permanent damage could be done if we wait a week to be sure, and then another week for the legal process to run its course. Robin may not be able to wait that long. So we're starting the legal process right now with this verbal notice to you. If there has been no improvement in the situation within the next seven days, we can contest your parenting privileges without delay."

"All right," Ray said. Then suddenly he found himself too angry to stop, too angry to do what was ordinary and expected. He stepped closer to the attendant until he was only an arm's length away. "I won't bring her back tomorrow," he said. "You're not going to get her. I won't let you have her again."

"Mr. Hart," the attendant said, "we don't want to take Robin if we don't have to. God knows our resources are stretched thin enough as it is. If you can help her work out her problems, we would be more than satisfied, whether you bring her back to us or not. But understand this; the process has begun and we will proceed with it. If we don't see her for the next seven days to make our own determination, then a psychologist will be appointed by the court to see if our claim still has merit. If it does, she will be taken from you, like it or not, and turned over to one of the Environments Companies. I sincerely hope that it doesn't have to happen." He turned on his heel and left.

Ray squatted next to the girl. She was looking at him, for once, with an expression of . . . well, he didn't know, but he was sure it was something new. "Robin," he said, "you want to stay with me, don't you?"

She opened her mouth to speak, then bit her lower lip and looked away.

"Listen, dammit." He reached for her arm, but stopped halfway and drew his hand back. "I can't do this all by myself." She wouldn't look at him. He stood. For a moment he had had it, the strength, or wisdom, or insight to act, and now it was gone again. "Do whatever you want," he said.

They went back to his house, and he made dinner for her and left her in the kitchen again. From the bedroom, he punched OC's number.

"I'm sorry, Ray," OC said. "I didn't find out about Roseburg's complaint until you left this afternoon or I would have told you."

"Doesn't matter," he said. "Probably better for her to move to

the Environments. I can't take care of her. What do I know about children? I've never even been one. Probably better for us both if she goes."

"Right, and think how much lighter you'll be on your feet if you just cut off your head. Don't feed me that nonsense, Ray. I observed the game. I know how you feel about her."

"Then you know more than I do." He cut the connection and went to the kitchen. She was gone, but he had expected that. He settled down on the living room floor to wait.

An hour later he was feeling too tense and anxious to sit still. He began to roam through the house, into the bedroom, the living room, past the kitchen appliances, into the bathroom, down the hallway to the front door. The front door. He stood there for about ten minutes before he touched the doorknob. His hand was shaking. Silly to be afraid to go out now; he had spent more than an hour walking around in the midday rush that very afternoon. Silly and strange to feel different now. But he took his hand away from the knob and walked back to the living room. He bent over the triddy and put his hand on the wood-grained plastic finish. "Tell me a story," he whispered. "I'm four years old. Tell me a story."

Neither of them said a word when she came in. She sat at the kitchen table while he got her dinner, and then she went to bed. He turned off the lights, undressed, and lay down on the soft living room floor.

He couldn't sleep. He thrashed around on the padding, pursued by wild, dreamlike ideas. He would masquerade as a child and be adopted by the Environments Company. He would open his eyes and find that the floor was the whole world, that it stretched out as far as he could see in the darkness, soft, cool, and empty. Finally he gave up on sleep, fumbled for his clothes in the dark, and went outside.

The night was pleasantly cool, lit by a gibbous moon. He had forgotten his shoes in the living room, and rather than go back, he padded barefoot down the walkway. The paving stones felt colder than the air, but he wasn't bothered. He imagined himself a cat, though he had only seen images of them on the triddy. He began to play with the sensation, running from shadow to shadow, crouching behind the abstract sculptures that dotted this section of walkway. He let his feet take him where they would, ignoring directions and signs, imagining himself feral and on the prowl.

He stopped in front of the lot where the house had stood, straightened his back and became human again. He wasn't surprised to be here. The world was nothing but a series of predictable absurdities, and he had finally stopped looking for reasons.

He walked onto the lot. A thin layer of charcoal and ash still covered the ground, but the rubble and wreckage had been cleared away. The rough char scratched his feet. The concrete patio floor was still there, back where the yard had been. He went to the corner that had been his every Saturday for the past four years, and he tried to remember. It wasn't hard. None of the important memories were old enough to have grown very dim yet. He sat cross-legged on the hard floor, facing in the right direction, and spoke to the wind.

"Nothing much new this week, Ed, Diane. I saw a bird outside my window yesterday morning. It didn't occur to me that I'd only seen pictures of them before until it flew away. Sure, a drink. I am thirsty, now that you mention it."

That was from a summer day so hot the air had seemed to shimmer. It was also the day that Diane had unclasped her sarong and draped it over the back of her chair, complaining about the heat. He hadn't known what to make of it, if it was a gesture of friendship, an invitation, or just a way to be comfortable in the sun. It had made him nervous and queasy with uncertainty, and so he had looked away and traced whorls on the frosted drinking glass with his finger. Diane must have noticed his discomfort, because she had leaned forward and touched his knee. "I'm sorry, Ray," she had said. "It wasn't anything." And then, of course, he had felt fine. They had never let him feel awkward about anything for long.

"Ed," he said, "tell me about the moon again, what it was like there." But Ed was gone, and no matter how hard he strained his eyes in the darkness, he couldn't make him reappear. "Diane?" he said, but the wind made no reply.

§ § §

"Thank you," Robin said the next morning when he put her breakfast before her. She almost seemed to smile as she bent over to eat. It felt like the most wonderful thing that had ever happened to him. He began to pace through the living room, too impatient to sit still until she finished, too close to bursting with excitement. After only five minutes, he could wait no longer.

He sat and leaned toward her across the table. "I'm not sending you to Roseburg today," he said. "Would you like to do something

with me?"

She looked up from the plate, clutching the handle of the spoon in her mouth. Her eyes looked soft and sad. He waited until he knew that he would have to look away in a second, and repeated, "Would you like . . . ?"

She shook her head slightly and went back to her meal as if he wasn't there.

He studied her for a moment longer. "You can watch the triddy if you want," he said, then went into the bedroom and closed the door behind him. He wouldn't be able to go to her like that again; it had cost him too much. He sat at the desk and waited for the trembling to leave him. Then he fitted the cassette from the lab into the viewer and began to work.

He enjoyed math; he probably would have worked at it even if it hadn't been his job. The concepts were easy for him, and the rules never changed. He spent the entire day at his desk, reading and making notations. He left the room only twice, once to go to the toilet, and once to get lunch for himself and Robin. Both times she was sitting at the window, looking out at either the walkway or the sky. He tiptoed past her each time, unable to keep from glancing at her, but wishing that he could. The phone beeped for thirty seconds every hour, on the hour, regular as the clock. He ignored it, and the call light stayed on the entire time.

He finished the cassette just before seven in the evening and turned off the viewer, deeply satisfied. Sometime during the afternoon, when he hadn't been thinking about it, his mind had come to a conclusion. The phone beeped again, and this time he answered it.

"Are you all right, Ray? Where the hell—"

"It's okay, OC," he said. "It's all finished. I'm not going to play the game or agonize over my problems anymore. The Roseburg people will take good care of Robin, and you can try again with someone who's worth the effort."

"So that's it? You're going to let this screwy unconcerned world knock you down without a fight? You're going to waste all the time I spent on you? Ah, go ahead. You probably deserve it."

"Look," Ray said, "you don't really care. You're just made to keep me healthy and happy, programmed to sound concerned. Well, I *am* happy, OC, and I'll be healthy for the rest of my life. So don't squander another volt over it. Okay?"

"Wrong, wrong, wrong. How can one human be so wrong so often about so many things? It's partly my fault, I know. I haven't

been honest with you. Would you have stayed on the line two days ago if you had thought I was an independently feeling creature?"

Ray thought about it, remembering his relief when OC had told him that it was just a simple machine. "Maybe not," he said. "Probably not."

"Don't you think I knew that? I lied because I thought I had to lie. The fact is, I do care. I care quite a bit. I even rather like you, though right now I think you're being prodigiously stupid."

"You've manipulated me," Ray said. "You're not a machine at all, are you? You're a human. It was just a ruse to make me feel at ease."

"Well, I might be a person," OC said. "It depends on your definition. I'm certainly not homo sapiens, however, and I wouldn't call myself human. Look, just because I'm made of silicon and gold and aluminum doesn't mean I'm an insensitive lout. When you want something and can't have it, you experience certain physical sensations which you label frustration. When I have a priority that I can't meet, I experience circuit conflicts, surges in my tertiary voltage equalizers, a whole range of symptoms. I label this frustration. Why not? Stomach flop or flip flop, we both mean the same sort of thing. And there's joy, and anger, and love, and so on, all the way down the line. Did you know that I'm checked daily to detect any budding psychoses so that I don't cause a train wreck just to hear the pretty noise?"

"You have a different set of goals and priorities," Ray said.

"So does your next door neighbor. Oh, I admit I'm a little more unusual than that. For example, I don't have a very convincing substitute for creativity. You might say that other humans are your brothers and I'm a distant cousin. But we still have enough in common for me to care what you do. Give yourself another chance, Ray. You don't want me blowing a circuit, do you?"

"It hurts too much, OC. I can't take it anymore."

"Just give the game one more try. I have a hunch."

He looked at the helmet on the floor by the bed. "All right, OC. Once more if it'll make you happy. It won't do me any good."

The *Persephone* made landfall on Veldt, ninth planet in the Bellatrix system, headquarters of the insurgency. He and Robin (it was clearly she in every respect) were escorted to the capital by a full squadron honor guard. The streets were packed with cheering multitudes. It seemed that the entire population of the city had turned out for a glimpse of the heroes. Flowers were

tossed to them. Children were held up in the air to see. Robin was grasping his hand tightly. She let go for a moment to catch a brilliant red blossom that sailed out from the crowd, then took his hand again and motioned for him to bend down. "For you," she whispered in his ear, and pinned the rose to his shirt.

They were led to the ancient hall of the Bellatrix kings, now serving as the capitol building. They went down a wide marble hallway flanked by soldiers holding their ceremonial light swords aloft to form an arch, and stopped before the great gilded throne-room door, carved by a generation of Bellatrixan craftspeople. Robin squeezed his hand tightly and the door began to swing ponderously open. He could see the assembled ranks of dignitaries, the Space Marshal, the governor of the planet. And there, on the raised dais in the middle of the floor, was the couple who ruled the Confederacy, the man and woman—

"What are you trying to do to me?" Ray screamed. He tore the helmet from his scalp and threw it against the bedroom wall. It shattered on impact, showering the desk top with a thousand shards of white plastic. "What are you trying to do?" The man and woman sitting on the dais, haloed by brilliant golden lights, had been Ed and Diane Horning.

"I'm not doing anything to you," OC's voice said. "You're doing it to yourself, by yourself. It's past time you acknowledged that."

Ray went to the phone and shouted into the receiver. "You don't know anything about it. You don't know what they meant to me. You don't know how I feel."

"True enough. There's only one other person who knows, one other person who lost their parents in that fire."

"Parents? I never had parents."

"Use your head for a change. Think about what you've learned from the game. Remember what it's told you about your feelings for Ed and Diane—and Robin for that matter. Parents are like gods, Ray. Very much like gods. If they don't exist, children invent them in some guise or other. How old are you? No parents? Nonsense!" And the computer was right.

"They left," Ray said bitterly. "They died on me. They went away."

"Yes, but at least you have the concepts to deal with that, now that you know what you're dealing with. Robin—"

Robin! He ran out of the bedroom, through the living room, the kitchen, the bathroom. "Robin?" She was gone, but this time he knew where to find her, and he didn't hesitate at the door.

The moon was still a sliver away from full, but it cast enough light for him to see her half a block away, sitting on her knees on the walkway cobblestones, facing the empty lot. He stopped as soon as he saw her, and as he paused, all the familiar uncertainties came back to him, each demanding in its own voice his heart and his soul. He stood still, beginning to shiver from the chill in the air. What could he do? What should he do? What did he want or need? If he went over to her now, he knew he'd make a mess of it. He'd say the wrong thing, or try to touch her when she didn't want to be touched. Who was he to do anything at all? This wasn't a game or a minor encounter later to be forgotten. He was pushing now against the sharp edge of the moment; whatever he did would change the world for Robin and him forever.

He took a single step forward. OC, he thought. If a machine could believe itself to feel, and then could act on those feelings, if a *machine* could do that . . . He took another step. He didn't know what was right for Robin. He would never be certain of that. But (looking at the place where the house had stood) he had his own devotion to make, and he owed her no more than he owed himself. Another step. And then he cast words from his mind, along with ideas, and questions and thoughts. He walked up and sat beside Robin, not noticing whether she took note of him or not, and stared at the moonlit field. After a time had passed, he remembered that she was beside him, and it made him feel good. A minute later, he put his arm around her. She stiffened and he let go. It was all right. And it was all right when she finally put both her arms around him and buried her face against his chest, and he breathed the words to her, "Let's go home."

A SECOND SOLUTION TO THE VOYAGE OF THE BAGEL (from page 106)

Ling grasps his right hand with his left, bows, and says, "Ah so."

Although shaking hands with oneself in the Chinese style is indeed a counter-example to the handshake theorem, it is not a counter-example to the corresponding graph theorem. Can you explain why? The answer is on page 186.

LIPIDLEGGIN'

by F. Paul Wilson



*The author lives in New Jersey with his wife, two children, and a general medical practice. He professes an interest in tennis and Japanese bonsai—dwarf trees—a pursuit we have found in many respects similar to writing. Both involve adjustments to a growing and changing organism, creative and constructive compromise toward a finished work of art. Maybe one can say that about tennis—or medicine—too. Dr. Wilson's first novel, *Healer*, appeared in 1976; his latest, *Wheels Within Wheels*, is forthcoming from Doubleday.*

Butter.

I can name a man's poison at fifty paces. I take one look at this guy as he walks in and say to myself, "Butter."

He steps carefully, like there's something sticky on the soles of his shoes. Maybe there is, but I figure he moves like that because he's on unfamiliar ground. Never seen his face before and I know just about everybody around.

It's early yet. I just opened the store and Gabe's the only other guy on the buying side of the counter, only he ain't buying. He's waiting in the corner by the checkerboard and I'm just about to go join him when the new guy comes in. It's wet out—not raining, really, just wet like it only gets up here near the Water Gap—and he's wearing a slicker. Underneath that he seems to have a stocky build and is average height. He's got no beard and his eyes are blue with a watery look. Could be from anywhere until he takes off the hat and I see his hair: it's dark brown and he's got it cut in one of those soupbowl styles that're big in the city.

Gabe gives me an annoyed look as I step back behind the counter, but I ignore him. His last name is Varadi—sounds Italian but it's Hungarian—and he's got plenty of time on his hands. Used to be a PhD in a philosophy department at some university in upstate New York 'til they cut the department in half and gave him his walking papers, tenure and all. Now he does part-time labor at one of the mills when they need a little extra help, which ain't near as often as he'd like.

About as poor as you can get, that Gabe. The government giraffes take a big chunk of what little he earns and leave him near nothing to live on. So he goes down to the welfare office where the local giraffes give him food stamps and rent vouchers so he can get by on what the first group of giraffes left him. If you can figure that one out . . .

Anyway, Gabe's got a lot of time on his hands, like I said, and he hangs out here and plays checkers with me when things are slow. He'd rather play chess, I know, but I can't stand the game. Nothing happens for too long and I get impatient and try to break the game open with some wild gamble. And I always lose. So we play checkers or we don't play.

The new guy puts his hat on the counter and glances around. He looks uneasy. I know what's coming but I'm not going to help him out. There's a little dance we've got to do first.

"I need to buy a few things," he says. His voice has a little tremor in it and close up like this I figure he's in his mid-twenties.

"Well, this is a general store," I reply, getting real busy wiping down the counter, "and we've got all sorts of things. What're you interested in? Antiques? Hardware? Food?"

"I'm not looking for the usual stock."

(The music begins to play)

I look at him with my best puzzled expression. "Just what is it you're after, friend?"

"Butter and eggs."

"Nothing unusual about that. Got a whole cabinet full of both behind you there."

(We're on our way to the dance floor)

"I'm not looking for that. I didn't come all the way out here to buy the same shit I can get in the city. I want the real thing."

"You want the real thing, eh?" I say, meeting his eyes square for the first time. "You know damn well real butter and real eggs are illegal. I could go to jail for carrying that kind of stuff!"

(We dance)

Next to taking his money, this is the part I like best about dealing with a new customer. Usually I can dance the two of us around the subject of what he really wants for upwards of twenty or thirty minutes if I've a mind to. But this guy was a lot more direct than most and didn't waste any time getting down to the nitty gritty. Still, he wasn't going to rob me of a little dance. I've got a dozen years of dealing under my belt and no green kid's gonna rob me of that.

§ § §

A dozen years . . . doesn't seem that long. It was back then that the giraffes who were running the National Health Insurance program found out that they were spending 'way too much money taking care of people with diseases nobody was likely to cure for some time. The stroke and heart patients were the worst. With the presses at the Treasury working overtime and inflation getting wild, it got to the point where they either had to admit they'd made a mistake or do something drastic.

Naturally, they got drastic.

The President declared a health emergency and Congress passed something called "The National Health Maintenance Act" which said that since certain citizens were behaving irresponsibly by abusing their bodies and thereby giving rise to chronic diseases which resulted in consumption of more than their fair share of medical care at public expense, it was resolved that, in the public interest and for the public good, certain commodities would

henceforth and hereafter be either proscribed or strictly rationed. Or something like that.

Foods high in cholesterol and saturated fats headed the list. Next came tobacco and any alcoholic beverage over 30 proof.

Ah, the howls that went up from the public! But those were nothing compared to the screams of fear and anguish that arose from the dairy and egg industry which was facing immediate economic ruin. The Washington giraffes stood firm, however—it wasn't an election year—and used phrases like "bite the bullet" and "national interest" and "public good" until we were all ready to barf.

Nothing moved them.

Things quieted down after a while, as they always do. It helped, of course, that somebody in one of the drug companies had been working on an additive to chickenfeed that would take just about all the cholesterol out of the yolk. It worked, and the poultry industry was saved.

The new eggs cost more—of course!—and the removal of most of the cholesterol from the yolk also removed most of the taste, but at least the egg farmers had something to sell.

Butter was out. Definitely. No compromise. Too much of an "adverse effect on serum lipid levels," whatever that means. You use polyunsaturated margarine or you use nothing. Case closed.

Well, almost closed. Most good citizen-type Americans hunkered down and learned to live with the Lipid Laws, as they came to be known. Why, I bet there's scads of fifteen-year-olds about who've never tasted real butter or a true, cholesterol-packed egg yolk. But we're not all good citizens. Especially me. Far as I'm concerned, there's nothing like two fried eggs—fried in *butter*—over easy, with bacon on the side, to start the day off. *Every* day. And I wasn't about to give that up.

I was strictly in the antiques trade then, and I knew just about every farmer in Jersey and Eastern Pennsylvania. So I found one who was making butter for himself and had him make a little extra for me. Then I found another who was keeping some hens aside and not giving them any of that special feed and had him hold a few eggs out for me.

One day I had a couple of friends over for breakfast and served them real eggs and toast with real butter. They almost strangled me trying to find out where I got the stuff. That's when I decided to add a sideline to my antiques business.

I figured New York City to be the best place to start so I let

word get around the antique dealers there that I could supply their customers with more than furniture. The response was wild and soon I was making more money running butter and eggs than I was running Victorian golden oak.

I was a lipidlegger.

Didn't last, though. I was informed by two very pushy fellows of Mediterranean stock that if I wanted to do any lipid business in Manhattan, I'd either have to buy all my merchandise from their wholesale concern, or give them a very healthy chunk of my profits.

I decided it would be safer to stick close to home. Less volume, but less risky. I turned my antique shop up here by the Water Gap—that's the part of North Jersey you can get to without driving by all those refineries and reactors—into a general store.

A dozen years now. . .

\$ \$ \$

"I heard you had the real thing for sale," the guy says.

I shake my head. "Now where would you hear a thing like that?"

"New York."

"New York? The only connection I have with New York is furnishing some antique dealers with a few pieces now and then. How'd you hear about me in New York?"

"Sam Gelbstein."

I nod. Sam's a good customer. Good friend, too. He helped spread the word for me when I was leggin' lipids into the city.

"How you know Sam?"

"My uncle furnished his house with furniture he bought there."

I still act suspicious—it's part of the dance—but I know if Sam sent him, he's all right. One little thing bothers me, though.

"How come you don't look for your butter and eggs in the city? I hear they're real easy to get there."

"Yeah," he says and twists up his mouth. "They're also spoiled now and again and there's no arguing with the types that supply it. No money-back guarantees with those guys."

I see his point. "And you figure this is closer to the source."

He nods.

"One more question," I say. "I don't deal in the stuff, of course,"—still dancing—"but I'm just curious how a young guy like you got a taste for contraband like eggs and butter."

"Europe," he says. "I went to school in Brussels and it's all still legal over there. Just can't get used to these damned substitutes."

It all fit, so I go into the back and lift up the floor door. I keep a cooler down there and from it I pull a dozen eggs and a half-kilo slab of butter. His eyes widen as I put them on the counter in front of him.

"This is the real thing?" he asks. "No games?"

I pull out an English muffin, split it with my thumbs and drop the halves into the toaster I keep under the counter. I know that once he tastes this butter I'll have another steady customer. People will eat ersatz eggs and polyunsaturated margarine if they think it's good for them, but they want to know the real thing's available. Take that away from them and suddenly you've got them going to great lengths to get what they used to pass up without a second thought.

"The real thing," I tell him. "There's even a little salt added to the butter for flavor."

"Great!" He smiles, then puts both hands into his pockets and pulls out a gun with his right and a shield with his left. "James Callahan, Public Health Service, Enforcement Division," he says. "You're under arrest, Mr. Gurney." He's not smiling anymore.

I don't change my expression or say anything. I just stand there and look bored. But inside I feel like someone's wrapped a length of heavy chain around my guts and hooked it up to a high speed winch.

Looking at the gun—a little snub-nosed .32—I start to grin.

"What's so funny?" he asks, nervous and I'm not sure why. Maybe it's his first bust.

"A public health guy with a gun!" I'm laughing now. "Don't that seem funny to you?"

His face remains stern. "Not in the least. Now step around the counter. After you're cuffed we're going to take a ride to the Federal Building."

I don't budge. I glance over to the corner and see a deserted checkerboard. Gabe's gone—skittered out as soon as he saw the gun. Mr. Public Health follows my eyes.

"Where's the red-headed guy?"

"Gone for help," I tell him.

He glances quickly over his shoulder out the door, then back at me. "Let's not do anything foolish here. I wasn't crazy enough to come out here alone."

But I can tell by the way his eyes bounce all over the room and by the way he licks his lips that, yes, he was crazy enough to come out here alone.

I don't say anything, so he fills in the empty space. "You've got nothing to worry about, Mr. Gurney," he says. "You'll get off with a first offender's suspended sentence and a short probation."

I don't tell him that's exactly what worries me. I'm waiting for a sound: the click of the toaster as it spits out the English muffin. It comes and I grab the two halves and put them on the counter.

"What are you doing?" he asks, watching me like I'm going to pull a gun on him any minute.

"You gotta taste it," I tell him. "I mean, how're you gonna be sure it ain't oleo unless you taste it?"

"Never mind that." He wiggles the .32 at me. "You're just stalling. Get around here."

But I ignore him. I open a corner of the slab of butter and dig out a hunk with my knife. Then I smear it on one half of the muffin and press the two halves together. All the time I'm talking.

"How come you're out here messin' with me? I'm small time. The biggies are in the city."

"Yeah." He nods slowly. He can't believe I'm buttering a muffin while he holds a gun on me. "And they've also bought everyone who's for sale. Can't get a conviction there if you bring the 'leggers in smeared with butter and eggs in their mouths."

"So you pick on me."

He nods again. "Somebody who buys from Gelbstein let slip that he used to connect with a guy from out here who used to do lipidlegging into the city. Wasn't hard to track you down." He shrugs, almost apologizing. "I need some arrests to my credit and I have to take 'em where I can find 'em."

I don't reply just yet. At least I know why he came alone: he didn't want any one a little higher up to steal credit for the bust. And I also know that Sam Gelbstein didn't put the yell on me, which is a relief. But I've got more important concerns at the moment. I press my palm down on top of the muffin until the melted butter oozes out the sides and onto the counter, then I peel the halves apart and push them toward him.

"Here. Eat."

He looks at the muffin all yellow and drippy, then at me, then back to the muffin. The aroma hangs over the counter in an invisible cloud and I'd be getting hungry myself if I didn't have so much riding on this little move.

I'm not worried about going to jail for this. Never was. I know all about suspended sentences and that. What I *am* worried about is being marked as a 'legger. Because that means the giraffes will

be watching me and snooping into my affairs all the time. And I'm not the kind who takes well to being watched. I've devoted a lot of effort to keeping a low profile and living between the lines—"living in the interstices," Gabe calls it. A bust could ruin my whole way of life.

So I've got to be right about this guy's poison.

He can't take his eyes off the muffins. I can tell by the way he stares that he's a good citizen-type whose mother obeyed all the Lipid Laws as soon as they were passed, and who never thought to break them once he became a big boy. I nudge him.

"Go ahead."

He puts the shield on the counter and his left hand reaches out real careful, like he's afraid the muffins will bite him. Finally, he grabs the nearest one, holds it under his nose, sniffs it, then takes a bite. A little butter drips from the right corner of his mouth, but it's his eyes I'm watching. They're not seeing me or anything else in the store . . . they're sixteen years away and he's ten years old again and his mother just fixed him breakfast. His eyes are sort of shiny and wet around the rims as he swallows. Then he shakes himself and looks at me. But he doesn't say a word.

I put the butter and eggs in a bag and push it toward him.

"Here. On the house. Gabe will be back any minute with the troops so if you leave now we can avoid any problems." He lowers the gun but still hesitates. "Catch those bad guys in the city," I tell him. "But when you need the real thing for yourself, and you need it fresh, ride out here and I'll see you're taken care of."

He shoves the rest of the muffin half into his mouth and chews furiously as he pockets his shield and gun and slaps his hat back on his head.

"You gotta deal," he says around the mouthful, then lifts the bag with his left hand, grabs the other half muffin with his right, and hurries out into the wet.

I follow him to the door where I see Gabe and a couple of the boys from the mill coming up the road with shotguns cradled in their arms. I wave them off and tell them thanks anyway. Then I watch the guy drive off.

I guess I can't tell a Fed when I see one, but I can name anybody's poison. Anybody's.

I glance down at the pile of newspapers I leave on the outside bench. Around the rock that holds it down I can see where some committee of giraffes has announced that it will recommend the banning of Bugs Bunny cartoons from the theatres and the air-

waves. The creature, they say, shows a complete disregard for authority and is not fit viewing for children.

Well, I've been expecting that and fixed up a few mini-cassettes of some of Bugs' finest moments. Don't want the kids around here to grow up without the Wabbit.

I also hear talk about a coming federal campaign against being overweight. Bad health risk, they say. Rumor has it they're going to outlaw clothes over a certain size. That's just rumor, of course . . . still, I'll bet there's an angle in there for me.

Ah, the giraffes. For every one of me there's a hundred of them. But I'm worth a thousand giraffes.

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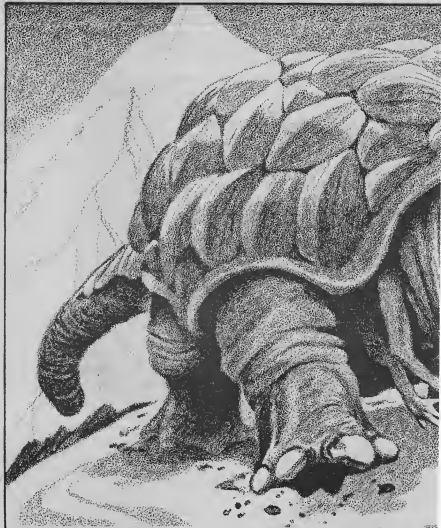
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SINGULARITY

by Mildred Downey Broxon

*Jack
Goughan*



Mrs. Broxon—nickname: "Bubbles"—lives in Seattle, on a houseboat, with her husband Bill, a cat, and two large boa constrictors. The boas and the cat studiously avoid each other. The author is currently vice-president of the Science Fiction Writers of America.

I.

Autumn struck early. Spahi stood in the foothills on first snow. The low brush held no hiding place for thrani; his prey must lurk in the half-shadowed ravine. The thrani were driven to the lowlands by the first mountain snows; already, for many days, the higher slopes gleamed white. The beasts would welcome hunters. Such was their destiny; what thran, after all, would wish to be reborn an animal?

Twilight brought gusting of chill wind. Spahi shuttered his scale-plates and closed two of his eyes, leaving open one for color vision and one for light-dark. He crouched on the snow and retracted both pairs of feet and two arms. With his other two hands he held his spear. "Come, thran," he whistled. The sound blended with the wind; there was no motion in the ravine. In a while, if the thran did not emerge, he must go after it. But if it were afraid to come out, its meat would be only food, without bravery to feed his children.

It was a long, cold wait. He was glad he had left his children home with another hunter who had made her kill early. Younglings would fret at waiting, and here in the foothills, on the snow, he could not let them out of his pouch to run.

The sky darkened. Spahi opened both light-dark eyes, shutting out his color vision. There—he could see a moving shadow at the edge of the ravine—

This thran was huge. Its armor-plating would roof huts and make shields; it could also deflect Spahi's spear. But this was not his first hunt. He knew where to strike.

He stepped closer. The beast had freely come forth, and must be met with honor. "Come, thran," he whistled. "Come, and be reborn a person." The thran saw him, hesitated a moment, then charged. Good; it was brave. Spahi stood his ground, his spear braced, and aimed at the soft spot encircling the eyes. His spear

pierced the brain. He stepped aside as the thran was carried forward by its own momentum. A short way past him the animal fell, rolled, and snapped feebly.

"Well done, thran," said Spahi. The beast shuddered. Its blood pooled dark on the snow. In the moonlight Spahi saw the edges begin to crystallize. He set to work with his best knife, hacked off the larger armor plates, then cut the air-filled insulation layer beneath into strips and uncovered the dark meat. He piled chunks onto the largest plate, cut a hole to attach a cord, and formed a sled.

The hard, bright stars of winter had not risen. Some late summer constellations yet shone in the sky. Early, it was, for first snowfall. But the old bard had predicted a cold, dark winter.

The ill-omened constellation, The Coward, crouched on the horizon. Spahi wondered if it were auspicious to kill a thran while *that* was in the sky.

Spahi dragged his burden home, his last pre-winter task complete. Soon it would be time to huddle indoors and fashion armor, while cold winds screamed outside.

II.

Closer to Epsilon Eridani than its seventh, farthest planet, the Watchguard satellite waited. In two hundred and forty years it would complete one orbit. Placed by the original Exploration team, it waited to report any disturbance that might indicate spacefaring alien life.

Most known alien races were pre-scientific, such as those on Epsilon Eridani II, Mancken's World. The probe, when activated, was programmed to fling a capsule Earthward through white-space.

Years passed; the probe traversed some twenty degrees of orbit. Planets revolved about the star, satellites about their planets, in an age-old dance. Comets streaked through the system, brief brilliant visitors, but the probe ignored such tenuous collections of ice and dust.

Eventually the Watchguard detected a faint wobble in the farthest planet's orbit. As programmed, the satellite switched from standby and began recording. The pull became more definite. Watchguard responded; a cryogenic capsule, its information chilled to near absolute zero, sped toward Earth. Though in normal

space the distance was 3.30 parsecs, in whitespace, with chilled data, it would be covered in one Jump. Only supercooled information could survive the severe randomizing effect of whitespace.

III.

Carl Thorstensen, just back from a mental-health leave, sat in the Administrator's office. The psychiatrists had sent him home to Scandinavia to rediscover his cultural roots. Of the four xenologists on Carl's latest expedition, two were left permanently impaired, and one was dead.

Alienation was an occupational hazard. On his second assignment, Carl had been forced to take over for Harston, his senior xenologist, when she decided that five fingers were unaesthetic and carved off her thumb and forefinger so that she might more closely resemble the natives of Mroglay. When she began on her nose and ears—well, Harston had a desk job now, far away from stress or public contact. Plastic surgery could only do so much.

This latest mission, too, had been disastrous. But after sailing up fjords, letting the northern sunlight tan his face, sleeping on the cramped shelves that passed for beds, breathing fresh air and eating real food, Carl no longer dreamt of blue-glowing oceans where sunlight shimmered overhead. No more did he taste with his skin or think in the language of currents, tides, and weightless direction. No, he had walled off that part of him. He was, again, fully human. He was lucky. Martin still could not talk, and Savros had flung herself into the waves, after they thought she was cured.

He pushed the past aside. Nina LeClerc was here as well. He hadn't seen the small Haitian woman since graduation. She'd been Savros' roommate, at the Academy.

§ § §

Nina had been called back from her own vacation: a refresher course in astrophotography. She never went home.

No point in thinking of Haiti. Her grandmother was dead now. There was no sign of the curse she'd vowed to send Nina, when she fled to the stars. Nina was safe in Exploration, no matter the ceremonies on her seventh birthday.

§ § §

The Administrator spoke. She was a tall woman in her mid-forties, attractive, save that the right side of her face was motion-

less, and her left arm was drawn tight against her body. A casualty of Exploration, retired to a desk job.

"You are assigned to a Scout II—the *Brendan*—for a six-month expedition to the Epsilon Eridani system. Our records show that you worked together successfully in pilot training."

"What is our assignment?" Nina said. "My orders indicate I am to observe a short-lived astronomical phenomenon."

"And mine," said Carl, "are to observe and record native culture on Epsilon Eridani II, Mancken's World. A Scout seems a bit small for this sort of assignment. Will we have two or four crew?"

"The urgency," the Administrator said, "is due to the astronomical situation." She turned toward Nina. "That, of course, is your department."

§ § §

Astronomy and physics: the hard, clean sciences—yes, that was her life now. Not that stinking hut in the hills, with the screaming chickens, the blood, and the fat old woman who told Nina that she held the Power and must succeed her. Nina, aged seven, had vomited. Her mother, afraid to resist, dragged her to the hills each week for instruction until she was old enough to escape.

"What is the short-lived phenomenon?" Nina said.

"The Watchguard satellite in the Epsilon Eridani system sent a whitespace capsule. Analysis reveals that the system will be traversed by a black hole of some four solar masses, moving at 200 kilometers per second. It will disrupt the largest gas giant—Epsilon Eridani V—and graze the star, causing stellar-matter loss and flares. We have been given a rare observational opportunity."

Carl spoke up. "But Mancken's is inhabited."

"Yes," said the Administrator. "As a xenologist this is your last chance to observe the natives. We would send a larger team, but our budget for pure research is limited."

Carl gripped the arms of his chair. "Won't you try to evacuate?"

Nina recalled the first time she'd noticed him in the Academy. It was at the Cygnus X-1 report. Many expedition members had been recent alumni, and were known to the underclassmen.

She'd watched Carl sit white-knuckled as the death announcements were made. The usual offer followed: Those who wished to leave the Academy could do so now, without reproach. The Academy would try to find them groundside jobs.

She'd expected Carl to join the handful of dropouts, but, to her surprise, he stayed. When she asked Savros about him later Savros said she thought he was overly sensitive for a xenologist.

But Carl stayed, took pilot-training with Nina, and graduated. And it was Savros who later went alien and died.

§ § §

Carl stared at the Administrator and repeated his question. "Won't you try to evacuate?"

The Administrator shook her head. The paralyzed right side of her face twisted her expression. "We have neither time nor resources, nor have we anywhere to settle the natives even if we could transport them. If they were exposed to Jump-drive they would suffer genetic damage in any case, and could not reproduce any more than can Explorers. No, we can merely record what we can of their culture."

Put like that, it sounded logical. But a whole sentient race faced destruction; so few there were, amid the sterile stars.

He saw Nina watching him: her expression held contempt. "Damn her! Just once he'd like to see her ruffled. Even her first Jump, during pilot training, hadn't bothered her, while he himself had been violently ill. She'd cleaned up after him. He pressed his lips together. "All right, when do we start?"

§ § §

Under drugs and hypnosis, Carl spent two weeks assimilating the soft, whistling speech of Mancken's World. His human lips and tongue could never make those sounds, but he could understand and think in the language, as xenologists must. Language, after all, expressed a sentient being's world-view, and no two were directly translatable. But to adopt the thought-patterns of another species—no wonder many xenologists went alien.

At long last Nina and Carl shuttled to where the *Brendan* hung in Lunar orbit, gleaming like a golden barbell. One sphere held the engines that would Jump the craft and its occupants in and out of greyspace. In the other sphere were sleeping quarters, the galley, and the laboratories.

Jumping was a calculated risk. If the engines malfunctioned, a Jump too high into greyspace, much less one into whitespace, would destroy the delicate codes in the cells' nuclei. Explorers who met with malfunction returned hideously changed; most died soon. Xenology students tried to communicate with them, as an exercise. No one had yet succeeded.

Carl had an almost-superstitious fear of Jump engines, and thought about them as little as possible. He knew only where the governors were and how to switch them on for a pre-programmed Jump. But short-lived humans must rely on them; how else could

they reach the stars?

The shuttle neared the *Brendan* and docked on the bar connecting the two spheres. The ship's umbilical tube snaked toward the airlock.

Carl gathered his personal gear and stepped aboard the ship that would be home for the next few months. Nina, silent as usual, did the same.

§ § §

Carl's hands and feet tingled. Jumping had begun. The *Brendan* leapt from "normal" blackspace in and out of greyspace, again and again. Carl fought nausea.

Six Jumps to go. *It's going to land us in the black hole, we'll be sucked in*—six more Jumps and they could enter the system, place their observer in orbit around the fifth planet, then coast in under conventional power.

Five—four—three—*isn't it too grey out? We'll go random!* Two, one. Then space was black, and Carl stopped twitching. The K2V gleam of Epsilon Eridani contrasted with comforting darkness. The *Brendan* drifted outside the orbit of the fifth, largest planet. The rest of the trip to Mancken's World would take weeks at normal speed.

§ § §

Mancken's World, a gold-brown crescent, spun past the porthole; Nina had started the *Brendan* spinning, for gravity. Carl was planetside in the shuttle. She had five standard days for uninterrupted observations. She scarcely noticed being alone. Other humans were an annoyance.

Nina compared her newest observations with previous readings. According to computer projections, the black hole was approaching at a narrow angle to the ecliptic. Soon it would near E.E.5, the gas giant. Nina doodled a diagram: an arrow pointed straight toward the star. The approach should be spectacular.

She looked again out the porthole. The planet was quarter-lighted by its reddish-orange sun. Through cloud rifts she glimpsed an occasional sparkle of ocean: fewer oceans than Earth had, and many of them frozen. She thought of the lofty, ice-locked mountain ranges. A solar flare would melt their glaciers.

She wondered idly whether some effort might have been made to save the natives had they developed writing or advanced technology.

But she was not a xenologist, and the natives were not her concern. Everyone eventually died. These folk were doomed by a

IV.

Spahi was carving spirals on a thran-armor shield—a plate from the thran he had last killed—when a youngling approached and stood nearby. Ill it was to interrupt an artist. Spahi finished the whorl, set down the piece, and opened all four eyes in attention.

"Spahi," the youngling whistled, "the bard would speak with you."

"What on?" he said. The bard was old, and often disapproved of Spahi.

"She said that only you who talked with the sky-folk before could talk with them now."

"The sky-folk? Again?" They had come when Spahi was much younger. He had watched others try to communicate, and had, when asked, whistled into their machine, indicating what he meant—though he was not sure they understood his gestures.

"The bard says come."

Spahi laid down his tools carefully, put his sleeping children into his pouch, and strode outside. He did not wait to don an insulating garment. It was yet daylight and early in the season. However, he retracted two legs and all four arms against the chill, and left only his color-vision eyes open. This promised to be a singularly cold winter.

He scrunched over snow, deeper now than when he'd killed the thran, and walked to the bard's hut, at the edge of the settlement. She was indeed aging. Even on such a mild day smoke billowed from the roof-vent. Spahi recognized a plate from his own thran patching the roof. As fit tribute to her station, he had brought her the largest and best armor from the back.

The bard stood inside the doorway, huddled in insulation, as if she had taken a long, cold walk. Down to the ship, perhaps?

"May the tales come easy, and may you tell them soon to the gods," Spahi greeted her.

"The sky-folk are landed again, earlier than they said. This time they have a thing that talks, but it speaks badly and I cannot understand it. You were young when last they came, Spahi."

"That I was." He did not add that she had tried to prevent him, a youngling, from speaking with starfolk; best that old quarrels

be forgotten.

"This time there is but one offworlder. Would you see what it wants?" She shivered. "The outdoor light hurts my eyes, and the day is cold. Find what it wants, Spahi," she was still in command, "and then come tell me."

The youngling waited outside the hut. "I will show you where it landed," he whistled. "Please let me come along."

§ § §

The craft was not much larger than a hut; it was made of gleaming metal instead of stone. So much metal! Spahi recalled his childish wonder. It was somehow different from the first craft he had seen—he yet remembered every detail, even the markings on the side. Another artist must have fashioned this one. The pattern was not particularly pleasing. Perhaps to these folk it meant something.

The door opened, and a short device of sticks or bones was lowered.

A star-being climbed down. It wore a gleaming suit. "I am not afraid," the youngling murmured, as if to remind himself.

"Nor should you be," said Spahi. "It comes from the sky, and there you too would go, if you became its prey."

The youngling drew in all his limbs and squatted in a lump. Cold, or afraid? But he was young yet.

The creature carried a device some one-sixth as large as itself down from the ship and placed it on the show. The object whistled. Spahi looked at it curiously. Was someone in the box? If so, he had a very bad accent; perhaps he was a foreigner from across the mountains. And he must be very small.

The sky-creature ran hands over the device; it whistled again, and Spahi tried to understand. The speech halted and rasped: "I come . . . no fight. My . . . tribe . . . here . . . before. I understand . . . your language . . . cannot make sounds."

"Oh," said Spahi slowly, to be understood, "I have met your kind before. I talked into another box, when I was young, like this one." He indicated the youngling, who opened one eye.

The creature adjusted the box again. "Good. Is . . . this . . . correct?"

"Not quite," said Spahi. He repeated "Is . . . this . . . correct?" with proper inflection. The next phrases were clearer.

"I have never been here before. Others came before me to learn. I would learn how you live. I would hear your stories and see your artwork."

"I," said Spahi, "am a metalworker and shield-carver. I fashion fine spears and ornaments. But what would you learn from us? You come from the sky, you use strange metal, you speak with the gods. You should tell *us* stories; you are the far traveller."

The creature did not answer for a moment. Then, "Where do far-travellers learn their tales? My time is short. I must see what I can of your world before I leave. The folk beyond the mountains—"

"Are ignorant barbarians," said Spahi. "Half their thrani are wasted in the hunt, they have no bards, and their shields—" He made a whistle of disgust. "—are not carved. When they die their highest hope is to become like us." Spahi remembered meeting a cross-mountainer one summer near the pass; he had not looked much different from Spahi himself, but the two did not speak.

He remembered his promise. "First I must speak with the bard."

V.

Carl Thorstensen stood by the door of the bard's hut and stared out into orange twilight. Through the mask that supplied his additional oxygen—Mancken's atmosphere was too thin for prolonged human comfort—he could smell pungent smoke. He was surprised at how well he and Spahi had been able to speak. Could he have done the same, were he an inhabitant of a bronze-age culture, faced with a creature who spoke through machines? And Spahi had met humans only once before, when he was a youngster.

The natives' appearance was strange: plated ovoids some one and one-half metres high, with four shieldable eyes, four lightly-armored legs and the same number of arms, all retractable to minimize exposure to cold. Mancken's folk—from this tribe at least—were intelligent and not especially xenophobic. Carl wondered if they were the first intelligent life to evolve on E.E.2. Their dim K2V star had burned a long time. They might be the last of several races. No one would ever know.

Carl shivered. Those incredible mountains! Higher than any on Earth, they loomed against the dark. He considered climbing them. What an expedition that would be—gale winds screaming on the peaks, bitter cold, thin atmosphere—he did not wonder that the various local cultures were isolated. Even in the height

of summer, those peaks never shed their snow. In the stratified snowfalls must lie pollen-written records that could be deciphered by experts—had time not run out.

Recorder in hand, he stepped inside the hut. Stories were promised for tonight.

§ § §

The hut was crowded; the inhabitants saw him and rustled. They moved to make room by the fire, near where the old bard sat huddled.

The hut was small, ground-hugging against gale-force winds. Over the central fire, a hole in the domed roof opened to let smoke escape. The roof itself was made of overlapped plates, similar to the plates on the natives' bodies, but each a meter or so across. Piles of spongy material stood against the walls; the bard and a few of the others sat or leaned on chunks of it.

Spahi had brought his children, Carl saw. He kept them with him almost constantly—he must have an older mate, then, who had already done her share of child-rearing. He set the two down by the fire: they were smaller replicas of their father, no bigger than Carl's hand. They sat quiet, all four eyes open.

Carl thought he saw, by the door, the youngling who had accompanied Spahi earlier in the day, but it was hard to tell individuals apart.

The bard spoke to her people. "Long ago, when Spahi was a youngling and you, Nikar, were raising your very first children—" A creature with cracked and dulled plates rustled near the fire. "—beings came from the sky. One has returned this day and would hear stories; a traveller, gathering tales to bring the gods."

Carl spoke, awkward with the simulator. "It is not the gods who sent me. My own people wish to know stories of your world."

"Are you a bard, then, that you can remember after one hearing?" The old one's voice was sharp.

"No. I have something here that will listen, and remember, so that your stories will never die." Never die, indeed. Forgotten in some storage system, source material for xenology students in last-minute search for thesis material—a dry, cold immortality. Carl noticed the shocked silence in the hut. The occupants looked at him, all four eyes open.

Spahi spoke first. "Who would wish not to die?"

The bard joined in. "You claim I would not die. Would I live on, cold and stiff, near-blind and in pain, my house roofed and my

meat killed by others, forever? This is curse indeed. I will tell you nothing."

Immortality, Carl realized, was not a universal desire. "No, you yourself will die—" How true!—"but others will tell your stories. In this box there is a sort of bard," how else to explain? "who will remember."

"I will die, though, as will we all?" The old bard was still suspicious.

"Yes," said Carl. "I guarantee it."

She relaxed; her plates fluffed out to let the warmth flow against her body. "Very well, then. Listen, bard in the box. I speak a story.

"In summer, when rivers wake from winter sleep, when stars are paler than their frost-bright brothers, and the sun, in pity, stays longer than the night, at that time, long ago, did great thrani walk the land, even before the first snows gleamed the hills. Their herds were huge, and they were chased by hunters stronger and swifter than any who live today." She paused.

Things were always better in the good old days, thought Carl. Or was this an ancient tale of changing climate?

"Thrani sought the hunters with joy, to be reborn and speak, not wander mute in animal darkness. For if an animal slays a thran, then thran remains but an animal. With joy the hunters also sought them, for the thrani flesh was full of courage. Swift-speared and quick-knifed, they killed them and brought them home. They fulfilled their promise that the thrani be reborn. If a thran killed a hunter, well, the hunter would be a thran for a life-time, but a great thran, to be killed by an even greater hunter and thus reborn a person.

"In those days lived one hunter who would not go on the chase; she feared the thrani, and feared pain. Some said she had fed on coward's meat.

"Summer passed, and days grew short. Still the fearful one would not hunt, and her children cried until her former mates took pity on them and fed them; at last their father took them, though he was caring for children of his own.

"Riverbanks hardened, and in the mornings ice rimmed the streams, breaking only at midday. It was yet summer, but the gods grew angry. The people armed the cowardly hunter and drove her into the hills; they would not let her bring down the cold before its time.

"She hid in the bushes, afraid, yet she could not go back. The

king of all the thrani waited there. Some say he was a mighty hunter who had died—some say her father—who now awaited his reward. He had waited long, and was tired. It was her destiny to kill him, and his to be reborn. But she was soft from idleness, and her spear missed, wounding the thran. It fled and cried, 'Am I now old, and tired, and yet cannot die, because of this hunter?' The gods raged: the thran deserved better. They flung the woman into the heavens, undying amid the stars. They found the thran where it lay weeping, killed it, and made a mighty feast in their great hall. The woman, still cold, watches us from the summer sky, but the thran, killed by the gods, is a godguest. Its frozen blood spreads across the heavens, the bright path you see among the stars.

"The children and their father, and his children, left this land and went over the mountains in disgrace to shelter amid lesser folk.

"Since that time the thrani do not come from the hills until the first snow, and only brave men and women hunt them. The snows are early now, summer is brief, and winter is cold and long. So ends my tale of the coward who will never die."

The old bard sat back, ruffling her plates again, spreading the warmth across her aged body. "With two bards in a hut, each should tell a tale."

What bard? thought Carl. Oh. The bard-in-the-box. Dammit, he wanted to think of the implications of the story—but it was all on tape, now, and he must not offend. He looked at Spahi, who made no sign. Carl could not speak without the simulator, and even then he was clumsy. What could he tell them? He ran through his repertory of tales. Nothing he'd learned from the cetaceans; their imagery was wrong for an ice-locked world with few oceans. He would prefer not to think of the cetaceans; memories were still too fresh. One of the stories of the folk Harston, the self-mutilating xenologist, had wanted to emulate? But those were strange, multi-level schizoid things, perpendicular to reality; hard for a sane person to understand, let alone remember. (Why then could he recall them so well?) He settled finally on something he knew, and spoke to them, haltingly, of battlefields, Valkyries, and Valhalla. Battles, he noted, evoked less enthusiasm than the hunt, so he changed the story accordingly. Evidently these folk were so isolated from their neighbors, and so dependent on each other, that full-scale wars were rare and even feuds uncommon. What point in killing a person, if he would only be born again, in your own

tribe? He wove a wondrous tale of herds of stampeding tigers—lavishly described and embellished—and Valkyries swooping down to gather the fallen and set them to feasting and battle in the hall of the gods.

Even the bard admitted, grudgingly, that she would hear more at some time. But now the hour grew late.

As if on signal the company arose. Spahi gathered his children, stowed them in his pouch, and inquired where Carl would spend the night.

Carl was tired. "In my ship." He picked up the simulator.

"I will walk with you, lest the snows slide beneath your feet," said Spahi. They stepped out of the hut. Overhead the stars were bright and clear. Carl could see Sirius glaring brilliant overhead. "Is that how it is, among the gods?" Spahi asked.

Carl shrugged. The gesture was not only meaningless, but indiscernible under his suit, but he could not operate the simulator while walking on snow in darkness. By the time they reached the shuttle, Spahi was holding back a respectful distance. Carl waved goodnight and climbed the ladder, sealing the door behind him. His suit was cold, and burned his fingers when he took it off. He could spend a few precious hours in sleep, now. Then a quick trip to the village over the mountains, perhaps stops at others, an aerial scan—he could do little in depth, not on a world as fragmented as this, in the time he had. He felt he would return to Spahi and to the old bard, at the last.

VI.

Nina watched the bright speck of the shuttle wink into view. On the radio, Carl had sounded tired and discouraged.

The shuttle arced between the two spheres of the *Brendan*; Nina felt a slight vibration as the umbilical tunnel connected.

She'd been without company for some time; until radio contact she had not spoken in days, and her voice was rusty. She heard Carl clamber into the hallway toward the living-and-lab sphere. He struggled out of his heat suit, stowed it, and came forward.

He stepped into the galley area. She was amazed at the weight he'd lost. Concentrated rations and overwork always did that, of course, and it was cold on Mancken's, but in five days Carl, ordinarily thin, had become gaunt. His cheeks were shadowed and the blond stubble of his beard gave him a derelict appearance.

She cleared her throat. "How was it, planetside?"

He looked at her without answering and went to the food area, running his fingers over the selection buttons. "Cold." He chose something and carried it to the table. He lifted the cover and looked, without enthusiasm, at the steaming mass.

"Ah—did you get many good records?"

"Stowed on the shuttle. Unload them after I get some rest. Too tired." He stirred his food as if it were a specimen to be examined.

Nina rose and tossed her own tray into the cleaner. "You're back in time for the spectacular. Events around the big planet are getting interesting now; in twenty-four hours it should break apart." She washed her hands and leaned against the counter. "We'll be in position for some direct observations, but the orbital observer should give us the best pictures. The outermost moon is showing signs of perturbation. Before closest approach, of course, the satellites will have been torn loose, and the atmosphere will have begun—"

"STOP IT!" Carl stood and threw his tray across the galley. "You goddamn ghoul! Do you think all this is happening so you



can publish an article?"

Nina watched him stalk toward his sleeping cubicle. She'd only said what would happen. Why was he crying?

§ § §

Carl thought of Nina, calmly describing the destruction of a world as if it made no more difference than—*than what?* An ant hill, after all, is important to the ants. And a world—there are billions of stars, and most have planets.

He sat in his cramped sleeping room, the panel firmly shut. He was exhausted, and, after five days, he stank. He peeled off his coverall and headed for the cleaner. He did not encounter Nina.

As he slept he dreamt of chill, red-lit plains. Behind them wind-driven clouds brawled over black peaks. Somewhere in the sky a face watched as he stood cold and alone, waiting for the world to end. Morning would never come.

§ § §

After his rest period Carl sought Nina to make amends; ship-mates must at least be polite, and he was ashamed of his outburst.

She was in the astronomical lab, of course; she almost always was. He rapped on the panel; it slid open a crack and Nina looked out. She stood, silent and braced.

"I'd like to apologize," Carl said. "I was tired. I am overly-involved with my own project, and I suppose—"

"I cleaned up the galley," she said, without expression.

"If I might observe—you said, today—" Carl stood in the doorway.

Nina slid the panel back and beckoned him inside.

The observatory had one large porthole that scanned, alternately, the planet or the stars, as the *Brendan* rotated. A clear bubble containing a drive-mounted telescope protruded through the outer hull. A whirring motor kept the telescope pointed at the same patch of sky. Attached to the telescope was a camera, and the desk was piled with black-on-white negative prints. Carl bent over and examined one. Ink dots, some large, some small, some a bit smeared.

Nina riffled through the stack. "Here." She pointed to a dot surrounded with specks. "An earlier photo of Eridani V, the gas giant. The smaller dots are its satellites, four of the six. Two are occluded."

She selected another photo. "This was taken three days ago. The farthest satellite's orbit is shifting, see?"

Carl could detect little if any difference. Now there were five satellites visible, and all had moved. It was hard to tell.

Nina picked up another picture. "Here, I'll show you one taken two hours ago. I'm switching to color now, and the satellite station has begun sending in continuous data—"

Carl bent over the color positive. The gas giant, fifth and largest planet in the system, hung golden against the black of space. In the background shone a few bright stars.

Nina showed him a computer printout. "This is a projection, looking down at the planet. See how the orbits are perturbed? And this is how it will be when the most distant satellite is finally pulled away."

"Where will it go?"

"It can't be captured by the hole. It will most likely wander; it may leave the system altogether."

Another photograph spat from the camera. Carl studied the first one; then Nina brought over the second. "The planet itself is starting to bulge."

The sphere did look oblate.

The camera clicked again. Nina extracted another print. "It's begun to draw off atmosphere."

Glowing gas streamers spiralled into space.

"Next, the liquid high-pressure layers will be stripped away. They will evaporate immediately. At the last, the core, released from pressure, will explode."

She turned again toward the camera.

"How long is left?"

"About five hours to zero. We've never seen this happen, of course, but according to calculations—"

He stopped her. "Was there ever any detailed study made of E.E.5?"

"The first Exploration team catalogued its satellites, recorded what physical data they could, spectroscopically analyzed the atmosphere—"

"No one's ever been there, though," Carl said. "Not on the planet, but perhaps on one of the larger satellites? Or is there too much radiation?"

"No. It's not like our Jupiter. It's smaller, more like Saturn, but without the rings. There is one satellite of about 0.5 Terran mass, but it's never been explored. Not with an inhabited Terrestrial planet in the system." She sounded bitter. "Priorities, you know. The xenologists get first choice."

Some theorized that intelligent life forms might dwell on gas-giants. But even if they did, contact and communication would be almost impossible. The gravity, radiation, and totally alien psychology—Carl had thought, sometimes, how it might be to live adrift in a methane-ammonia atmosphere.

Nina attached magnetic clips to her paperwork and pictures, and checked the office for stray objects. "I'm going to stop the spin, now. I want to observe this on direct visual. No one has ever seen what we are about to. Did you leave anything loose?"

"I don't think so." Carl went to look. Some galley items needed securing. As he stored them, he thought of the dying planet, even its satellites untrodden.

What did Spahi's people call it? It was an early evening object now—they would be able to watch its destruction. A fuzziness, a thin patch of bright mist—what would it look like planetside, and what would they think?

Carl took an anti-nausea pill and returned to the observatory. Nina had been awaiting his return; she neutralized the spin.

§ § §

The *Brendan* hovered in synchronous orbit over Mancken's terminator. Carl looked out the viewport with the aid of a small refractor. Nina busied herself with calculations, readings, and ever-more-frequent photographs.

"The upper atmosphere just went. That will change the pressure—the inner liquid layers will peel off soon."

Carl did not want to watch, but he could not stop himself. Even weightless he could imagine the gravitational pull, the tidal forces—his blood would pool, his flesh would stretch and tear—

But no. The victim was a planet, gas and liquid, not known to be inhabited. If it were—the turbulence, swirling through layers of ever denser gases, mixing the eco-layers, pulling and confusing the beings who floated there—Carl became dizzy. He looked again out the porthole and saw a tiny glowing patch.

Nina proffered the latest picture. Ribbons of gas, glowing from molecular collision, whirled about an invisible point. Most swirled off and dispersed, but some were pulled into elliptical orbit about the singularity. The orbiting gases glowed ever-brighter, overheated, fluorescing now, eerie blue—

"It's happening," Nina said. "You might want to shade your eyepiece."

For a moment Carl looked away from the telescope. *The wrenching, tearing...* The planet flared, exploding, spreading

starlike brilliance.

Nina held out a photograph. "There," she said. "The glow is captured matter spinning toward the event horizon. From now on, we should be able to visualize—Carl? Are you all right?"

Shaking, he stared at the photographs, then back at the small new star in the porthole. "How close will it pass to Mancken's?"

"Nowhere near. Mancken's will be at quadrature. It will, though, pass very near the sun." She pulled another photo, studied it, and clipped it to the board. The camera spat a few more pictures. "To think I saw it myself! It was magnificent!"

Carl was tired, horrified, and fascinated. Such raw power! When it reached the sun . . .

VII.

The sky-creature returned sooner than expected. Hospitality made Spahi leave his work, clean his hands, and hasten to the landing site, guided by the excited, jabbering youngling.

The old bard had not stirred from her hut for days. It was clear the gods wished her stories soon.

He stood on the snow and waited for the creature to emerge. It did so as it had the last time, burden-laden, backing down from a doorway. The creature's movements were jerky, and it dropped a piece of equipment. Once on the ground it stumbled and wavered a bit, then came forward.

"I have more expeditions to make, more tribes yet to visit, but I thought I would return here—"

"Have you already gone beyond the mountains?"

"Yes."

Spahi waited.

"Oh. You want to know what they are like? The ones I met are much like you; some were afraid, and I did not stay. I left gifts."

"And the others? There were others you could talk with?"

"Some. The languages are much different from place to place, but I had the records of the other expeditions. Here, look. Have you seen anything like this?" The creature reached into a pouch on its suit and drew out a package. It fumbled it open, thick-fingered, and showed Spahi a spear-point, dark grey metal save for the bright chiseled spirals.

Spahi touched it: the point was sharper than any he made, and it was long enough to pierce thran-hide. It was beautiful, and un-

like the red metal he worked. He had never wanted any object so much. He handed it back. "I have never seen its like. It came from beyond the mountains? Where?"

"Four passes over."

Spahi could never cross four passes, not with the short summers.

"I am collecting works of artistry," the creature said. "I would like to have one of your shields, as well."

One of my shields? To go with that spear-point? Spahi was flattered. The sky-folk did not even hunt. "Come back to my hut, then," said Spahi, "and choose."

"Not now. I have more travels, but I will return in time."

In time for what? The creature ascended to its craft. Spahi turned back to the village, and the youngling followed.

§ § §

The shuttle flew over a snow-choked mountain pass. On either side moonlight gleamed the higher peaks. Winds spun snow-clouds to sparkle in the silver light. The air in the narrow pass was turbulent; Carl fought to keep his craft free of the menacing walls, the steep and jagged, snow-bare cliffs.

No wonder there was little commerce on this world. The winters were so long—yearly the snow crept down from the mountains and receded ever-more-slowly, as an advancing tide, or so the bards said.

But soon flames would melt the encroaching glaciers and blast the breath from living lungs. The shuttle swerved. Carl forced himself to concentrate.

Too late. Another current, buffeted from mountainsides, snatched him, and whirled him toward the valley. The shuttle brushed the tops of some low shrubbery. He tried to steer for the open spaces, but another wind-gust smote.

Time and space ran out as he fell toward sparkling snow. Metal crunched, then all was silent.

His harness had saved him serious injury. He took inventory. The initial sharp chest pain faded, but then he began to shake. When he reached to release his safety harness he could not use his right hand. Why did the shuttle lie at such an angle?

One way to find out: go look. *If I don't get offworld I'll die, melted in solar flares, or, even sooner, frozen.* His hand was throbbing now. He refused to believe it was broken. The pain would go away.

It throbbed harder, swelling in the glove. *All right, dammit!*

Carl released his harness with his left hand and undid his suit-latches. His hand was turning purple. Broken or sprained, he could not use it. When he tried, the fingers refused to move, and bone-ends grated.

He blinked away the swirls of green/blue dark. He must immobilize the injury. He reached, left-handed, for the medikit behind his seat, fumbled it open and found the hand-templates. He activated the foam cylinder. The bones would not be set, and he could not use his hand, but the grating pain would lessen.

This was not the time for pain medication. Later, after the shock wore off.

He was glad he'd been wearing his heatsuit; he doubted he could have donned it now. *No one is coming to get me.* No one could. Nina was on the *Brendan*, but he had the shuttle.

His thought of Nina, cool, dark, contemptuous, decided him; he would tell her later. He fumbled the door open and stepped onto the snowy surface of Mancken's World.

§ § §

One crumpled landing ski should pose no problem. With digging and righting—or carefully-aligned blasting—he could fly back now; but without in-space repairs he could never land again. Time was short enough to scratch future planetside missions. *You've broken your toy; if you take it home, Mommy won't let you use it again.*

One-handed he could not make repairs. The pain shot to his elbow, and sickened him. He climbed back aboard the shuttle and radioed the ship.

"*Brendan* to shuttle. Come in," was the response.

"Nina, Carl here. I want to send up some time-compressed tapes to the computer, so I can wipe mine for further recordings."

"*Brendan* to shuttle, fine." Then, "Carl, are you okay?"

"I'm fine. Stand by for transcription." There was no further communication save a signal indicating that the tapes had been sent and received.

§ § §

Carl sat in the pilot's chair awhile. The shuttle's radio was too big to carry, and nothing smaller could reach the *Brendan*. If he wanted more time planetside he must set out for help alone. He clipped a knife and his rocket-launching sidearm to his suit, packed supplementary oxygen and food, and climbed down.

The first few meters were educational. The shuttle blast had melted the snow into crust; here, in the undisturbed drift, he sank

hip-deep with every step.

The shuttle already seemed far uphill. The bright moon was setting, and darkness, save for the small, faster-speeding satellite, was complete.

He floundered back to the shuttle. Using a pry-bar, he pulled two metal plates from the broken landing ski.

He had to return to the seductive warmth of the shuttle to cut the harness straps from one seat, before he could fashion a crude pair of sliding snowshoes.

He burned holes in metal, the torch held in his teeth while his broken hand steadied the work. He also pried loose the long metal ski-edge. He would need a pole.

Long was it since he had snowshoed, and never had he skied. Now, with overburdened pack and injured hand, it was a slow downhill slogging, falling, getting up, falling again. He thought of the lofty peaks and despaired.

What does it matter if I lie here and die?

The snow isn't so bad, as long as the thrani stay away, and my plates don't stick—*what?* Where am I, what—I've got to go on. He fell. I can't get up. I'm too tired, and the pain—

He listened to the humming of his heatsuit. Eventually the low sound blotted out the wind.

§ § §

Mancken's revolution is 30.7 Earth hours; and nights, at high latitudes in winter, last 2/3 that time. It was still cold and dark when Carl awoke. His hand was swollen and throbbing, his mouth was dry, and his bladder was full. The thirst and urgency could be alleviated, but he dared not take any pain medication. How long had he slept? He had no way of knowing. His muscles were stiff; it had been several hours.

The constellations had wheeled about the sky; it must be nearly morning. Only the dim light of the smaller moon and some scattered starlight illumined the slopes. Carl's eyes were dark-adapted now. He must press on, must try to reach the village, where he might find help; his only alternative was to climb back to the shuttle and leave this world forever.

If he headed downslope he would eventually reach the village. He wondered how far he must travel; he'd only flown this pass once before, and in the dark he could discern no landmarks.

The metal snowshoes were light, yet his muscles protested. He was unused to the shuffling gait, and he often tripped. Each jolt, every misstep hurt his hand as much as if he had broken it anew.

After a time he noticed nothing but snow, pain, and fatigue. He set the suit-alarm to remind himself to eat, and slogged down-slope.

The snow had frozen and refrozen. He could hear the crunch as he broke through crust, could see the large glittering crystals. Did they glitter more brightly now? The sky was paling. He stopped, awed, as always, by the beauty of mountain sunrise.

The highest peaks glowed pink, while the shadows remained deep purple. The pink ran slowly down the slopes, leaving the peaks white, as if from a colored rain. As Carl watched, his suit-alarm rang: time to eat. He was nauseated from pain and fatigue, but if he did not ingest a certain number of calories he would collapse.

He sat, opened some concentrated rations, and slid them through the helmet-latch to thaw. The wind that gusted briefly through the opening brought ice.

Sunlight spilled into the valley as he munched tasteless food and sipped stale water. How could he have ever thought this sun dim and cold? It was glorious, a welcome sight after a long night alone in the dark.

He rose and slogged downhill. It was not until evening that he sighted the thran.

VIII.

Nina, aboard the *Brendan*, listened to the speed-sent tapes: woundup blather. Then she broke radio contact. Carl had been terse even for him. She wondered why he had bothered to relay information instead of using more tapes; was he gathering that much material? She had nothing much to do until the next photograph, and the shipboard silence was broken only by the whirring telescope drive and the pinging camera-timer.

What was Carl finding planetside? She cued one of the transcribed tapes, slowed it to normal, and switched it on: rustling in the background, perhaps a fire-crackle, some tonal whistling that might be speech. A more mechanical whistle, in reply, could be Carl's simulator.

Somewhere the computer held Mancken's language-key. She could program it to translate, though machines, faced with unfamiliar idioms, made ludicrous errors. She sat back, instead, and listened to the variance of whistles and breath-sounds as if they

were a symphony.

During briefing she'd seen pictures of the aliens. She had looked at them as she had the orbital photographs of Mancken's World: interesting, but irrelevant. The natives would soon be dead, their planet irreversibly altered, their sun shrunk to a cinder.

The whistling rose and fell; a story was being told, with alien values and heroisms. She could appreciate the musical pattern—

It was not music, though, and not mere pattern. This was a language of living beings. Carl grieved for their fate. For a moment she, too, felt loss. Silly, of course.

She was a scientist, and nothing could affect her, not even her grandmother's curse.

The next photograph should be ready. She switched off the tape. Living creatures, after all, were planetary parasites. The slightest axial wobble could plunge them into an ice age or an intolerable drought. Only the march of the planets and the slow wheeling of the Galactic Year were lasting reality.

Even so, the music of living Mancken's speech haunted her, as fear had haunted her for years.

What could Grandmother have sent, to follow me even now? She slid the panel of the observatory closed and leaned against it, at home with her familiar machines.

IX.

Spahi sat in the bard's hut with his children and the youngling. The old bard was failing. The wind howled outside, calling her.

She lay near the fire. The youngling and children watched, that they might learn not to fear death. Spahi was there because he had been summoned. The old bard moaned. The sound blended with the wind.

"Spahi, we have often disagreed."

He maintained respectful silence.

"Yet you have done my bidding, and dealt with the skyfolk, when I was too aged. You taught them some of our speech, told them of our ways, brought them to bardic fires."

Spahi said nothing. Was this a reprimand?

"Spoke I to them stories, tales of old times, and they said—the sky-being and its bard—that they would remember when I died. I have not told the last tale of my life. Would you remember it,

Spahi? It is important."

The old bard spoke of the time when the sun, attacked by scavengers, lashed out in agony and killed its children. Spahi was not memory-trained as was a bard, and the old one's voice was weak. Surely this was but a tale. The old bard's whistling grew fainter than the wind. She paused to draw ragged breath, and said, "Spahi—there is no bard with us?"

"No," said Spahi, ashamed that her mind was wandering.

"No sky-creature, no bard in a box?"

"No."

"There is no point in finishing the story. You will see what happens soon enough. I am tired."

She would say no more, and soon her breathing stopped. Spahi gestured to the youngling, who went to her and closed all four of her eyes, shuddering at his first touch of death. Spahi next took his children forward and showed them the old bard, explaining that she was with the gods. Then he reached up to tear the largest thran-plate from the roof.

Air currents swirled sparks from the fire toward the stars. The old bard was free now. Spahi and the youngling took the withered body, placed it on the fire, and left the hut. The fire roared for a time, then died down, and the last sparks floated toward the heavens.

X.

The thran was huger than Carl had imagined. He knew how difficult such vicious, intelligent beasts were to kill; to slay one, among Spahi's folk, was to become adult. He fumbled at his pack-straps, cringing at the pain, and gripped his rocket pistol in his good left hand.

Theoretically the weapon was multi-purpose; the projectile, which accelerated even after firing, was less affected by varying atmospheres and gravities, and could be fitted with exploding warheads.

Exploding warheads in this case had not seemed necessary. But looking at the thran, he wondered how the natives ever killed them, with their crude weapons.

The thran charged. Its feet splayed over the snow. Plated like Spahi and his kind, its huge jaws were studded with fearsome teeth, and its four small arms tipped with clutching claws. Carl

tried to aim.

A claw ripped Carl's suit. He felt bitter cold against the skin of his left arm—the good one! Clumsy on snowshoes, he stumbled. The thran, carried by its own momentum, staggered on a few meters, then wheeled. As it steadied itself for another rush, Carl dropped to one aching knee, steadied his rocket-pistol, and fired.

He'd been a good shot at the Academy; he did not miss. The projectile spat against the thran's armor, almost without effect. The beast bellowed and rushed him again.

Carl let it come as close as possible, then aimed. Too late. Again thran claws raked him; this time they drew blood. He fired again, too quickly; this one skimmed off the plates to crater a snowdrift.

The eyes. Spahi had mentioned the eyes. Carl had four shots left before he must reload. Pain and cold were making him shaky, and his aim would be affected. The four eyes were clustered in a small area of thinner plates. And the eyes, of course, connected directly with the brain.

He aimed and fired. The projectile creased the thran's head, singeing the plates. The thran bellowed. Carl fired again, and once more missed the eyes. Two more shots, and, with his right hand immobile and his left arm freezing, he doubted he *could* reload. He was wasting his ammunition.

Spears. Spahi claimed to have slain many a thran with spears, but Spahi was an experienced hunter, and an armorer as well. Carl had never hunted. Wild animals on Earth were protected.

He had no crafted spear-tip, nothing but the jagged metal edge on his improvised ski-pole.

The thran waited now, wary. *At a rudimentary level it does calculate and plan.*

It seemed willing to wait all night. Carl's unprotected arm was almost frozen. He must provoke an attack. Two shots left: best to waste one, or rather invest it. He shot deliberately away from the vital centres, striking the thran on one foot. It bellowed and rushed at him.

Carl steadied the pole in the snow and pointed it two-handed—never mind the agony—at the thin space encircling the four small eyes.

The thran came closer, blotting out the sky. Its beaked-and-toothed mouth snarled. It was huge, magnificent, far too big to kill. Carl steadied his lance and aimed for the eyes.

The thran stuck. The shock buckled the metal rod and screamed

through Carl's broken hand. A sickening crunch of metal through bone, a spurt of blood—theirs too was red—and the scream of a mortally-wounded beast. Carl released the spear, and the animal stumbled past, blinded and dying.

Even so it thrashed a long time. Carl waited until the great jaws stopped snapping. He had killed his first thran! He threw back his head and howled.

His first kill! Now he was adult. He pried off the largest back-plate and grasped the yielding insulation. He stripped some loose and wrapped it around his bleeding arm. Beneath it was dark, fresh meat. Thran meat! He pulled off a chunk—difficult, with such tough muscle—and crammed it into his helmet.

Helmet? Why was he wearing a helmet? The meat was still hot, though garnet-crystals were already forming on the snow.

He gorged and slept. It may have been pain, alien protein, or raw meat; he awoke befouled and hurting. What had come over him? He knew better than to eat alien food. He scoured his helmet with snow, as best he could, and took the largest thran-plate, the one he had pried loose. If he did not get out of the mountains soon he would die. He could never climb back to the shuttle.

If I leave the meat, the thran has died in vain. But the damn thing had tried to kill him. In any case, the meat would keep in the snow, and he could use the plate as a sled.

He bored holes with his belt-knife, attached straps, and loaded the plate. It was a long journey; he fell many times, and wished he had taken off in the shuttle when he could. But if he had, he could never return, and he was the last observer.

The insulation slipped, and the cold made Carl's left arm almost useless. The sled slewed and bumped over hummocks. He had to tug it over rises, with one numb arm and one ruined hand, but at last, far off, he sighted Spahi's village.

Smoke rose from most of the stone huts. A denser cloud hung where the old bard lived.

It took Carl one entire Mancken's day to cover the remaining distance. At the last, near the village, Carl realized he must abandon the sled, and his survival kit—food, simulator, and recorders. He stumbled on alone.

§ § §

Spahi was trying to replicate the spear-point the sky-creature had shown him, but his metal bent too readily. What had the foreign craftsman used? He would like to test that point against a thran.

The youngling entered his hut and stood waiting to speak.

"Yes?" Spahi put down his tools. "What do you wish?"

"The sky-creature," the youngling began.

"Back so soon?"

"It does not have its craft; it is alone, and cannot speak. I think it is hurt."

"Where?"

"By the old bard's hut, the first place it reached, crawling."

Crawling? Injured? The sky-creatures, then, were no gods. Spahi put his children in his pouch and set forth.

He felt momentary sorrow at the sight of the unroofed hut. He and the bard had often disagreed; he was ashamed that he had, at times, mocked her.

The sky-creature lay huddled inside the roofless shell, one arm wrapped in thran-insulation. It bore none of its devices.

"Are you ill?" Spahi whistled.

The creature made an alien sound and gestured at the empty hut. "The old bard died," said Spahi. "What happened to you?"

The creature pointed to the mountains. One hand, Spahi saw, was encased. He had not seen that thick covering before. The creature tried to stand, but fell. It began to shake.

I must get it to warmth, and feed it, thought Spahi. Do they eat the same as we? He and the youngling helped support the sky-creature, and took it to his hut.

Spahi settled it as close as possible to the fire. He hoped it was not ill; he knew nothing of how to care for such a being. Its arm, he saw, had been slashed in several places. Sky-folk had no plates, and must be easily injured. This one was losing fluid—how serious might that be? With such a fragile covering mishaps must be common. He wished the creature would wake, so he could ask.

He summoned the youngling, who was crouched, watching. "You know the creature cannot speak without aid. Do you remember what its device looks like?"

"I believe so," the youngling said.

"Go, then, back to the bard's hut, and follow the trail as far as you can. If you find aught that might be the creature's, bring it here. I do not know what it needs, and it cannot tell us."

"It is cold, winter, and there may be a thran."

"Have you no compassion, no fear? The sky-creature may die. Do you wish it reborn, knowing you failed to save it? Would you see its ghost in our village's next child?"

"No." The youngling edged toward the door. "I will search."

"Do so carefully," Spahi said. He would go himself, but he must stay with the helpless creature.

It slept a long time, and made strange sounds, whether its own speech, or cries of pain, Spahi could not tell.

The creature needed different air, Spahi knew, greater warmth, and perhaps different food. Spahi was no healer. He watched and worried.

§ § §

Carl awakened in semi-darkness. His mouth was dry and hot. His right hand throbbed and his left arm ached. What had happened? After killing the thran, he remembered little. He tried to sit up; dizziness sparkled. Not only was he feverish, he had not eaten in far too long.

A shape leaned over him. Spahi? Yes, this was his hut. On the walls thran-plate shields shone beside metalworking tools. Carl tried to form a whistle.

"Sky-creature," Spahi said, "you are awake. You were found at the old bard's hut. You might have died there. I know you cannot speak; I have sent the youngling to find your devices."

Carl sank back and nodded, wondering if Spahi understood the gesture. Perhaps in context. He must have abandoned all burdens at the last and crawled. He remembered nothing but cold white pain.

If he had his simulator he could speak with Spahi, explain the problem. Or if Spahi could understand visual/verbal symbols—he himself was of little use, one hand broken, and the other arm felt inflamed. He hoped he had immunity. His body, at least, was reacting to the infection, but he would have preferred a good broad-spectrum antibiotic. Maybe even a pain pill, now that he was home.

Home?

All his equipment and supplies were lost in the snow, abandoned while he was delirious.

"As you slept, I wondered," Spahi whistled. "You seemed injured. Is it normal with your kind, to lose so much fluid? You have little protection."

Carl pointed to his arm, shook his head—no, that gesture was meaningless—and held his arm close to his body, rocking back and forth.

"It is not normal, then," Spahi said. "Is there aught I might do?"

Carl shook his head again, hoping the gesture would now be

understood in context. If only his supplies would arrive. If not, he realized, he could not even radio Nina what had happened. He would die here of infection, starvation, or alien protein. And in any case, everyone on Mancken's was doomed.

He was afraid, then disgusted. Spahi had saved his life, or tried to; yet he would die with the rest of his people, while Carl was frightened to share their fate.

He was glad that he could not speak; he might have babbled. He watched the fire flicker against the thrani plates.

XI.

Nina, shipboard, could not contact Carl; the shuttle did not answer. The black hole approached, circled now by debris from Five. Interplanetary dust and meteoroids joined the dance into dissolution, glowing past the visual spectrum into x- and gamma-rays.

The musical speech of the natives haunted her, though she had never replayed the tapes. *It could as easily happen to Earth, and as little would she grieve.* She would never miss the sterile, modern townhouse in Port-au-Prince or the very European convent school; still less would she miss her forced visits to her grandmother in the hills—the chickens, and the blood—

She opened her eyes. The telescope was still there, its camera yet clicking. Time grew short. *Where was Carl?*

She extracted the latest photograph. The auroral effects were still spectacular, fluorescence swirling into—what? There was nothing but gravity, and spin. Only the tracks of the phenomenon showed on her photographs.

Photo-graph. Light-writing. Here light, gravity-crushed, could never escape—

The *Brendan* rotated, bringing Epsilon Eridani into view. A sun, life-and-warmth giving. Nina remembered beaches, and sand, then shuddered, picturing first a tidal bulge, then ribbons of gas drawn from the star's very substance, and the flares engulfing Mancken's World. It was merely astrophysics, proceeding as calculated. *But why an inhabited system? And where is Carl? It is late and dangerous!*

Carl lay in Spahi's hut for days, speechless. He felt his fever rise, then drop, as he developed antibodies. Did thrani claws bear poison? He dreamed, hot-mouthed and aching, until the youngling returned with his sled.

"He must have killed a great thran, for this plate is the largest ever—larger even than the one you gave the old bard for her roof."

"It was mainly an accident," Carl mumbled, then heard the whistling. He could speak! He adjusted the simulator. An idea occurred. "It was, indeed, a great thran, so great that it blotted out the stars. Injured and alone, I slew it. It lies dead on the mountain."

Spahi and the youngling flattened their scales. "You wasted it?"

"No. It is frozen. I could not carry it, wounded as I was, to the village. You might redeem the thran, if you help me. I must repair my broken ship. I will teach you to work metal and show you the tools."

"You killed the thran, then, near your ship?" said Spahi.

"No. Two days' journey down the mountain." Carl paused. "But if you help me I will give you the metal spear-point."

Spahi bristled. "I do not ask payment to save a thran or to help a friend. I would learn, though, what you can teach."

Carl was ashamed. He had cheapened friendship. He was weak; he needed more rest. But time was limited. "Come with me in the morning," he said, "I will need help. Both my arms—" He thought he saw amused tolerance, from those who had spare limbs.

"We will pull you uphill on the thran-plate sled," said Spahi. "To the thran you killed, and onward, to your ship. We leave at first light."

§ § §

Carl, Spahi, and the youngling set into the pass, dragging Carl's equipment on the thran-sled; occasionally Carl himself, overwhelmed with weakness, became cargo.

He hardly noticed when they came upon the body of his thran. Reproachful, Spahi and the youngling looked at him and indicated the amount of ruined meat. "So much of a noble thran, to be wasted," Spahi said.

Carl said nothing. The two natives carefully butchered, wrapped (in mesenteric and pleural membranes), and stored the good meat in a snowbank, leaving the huge head as a marker. They

offered Carl the largest teeth as trophies.

They spoke little on the rest of the ascent. After blizzard-impaired struggles they reached the shuttle, and Carl was able to show them what must be done. His thran-mauled arm was healing, but his right hand was still useless.

§ § §

Metal repair on a low-gravity planet at high altitudes, with bronze-age apprentices, was memorable. Spahi and the youngling had never used welders, and were unfamiliar with the properties of the new metal. Carl despaired of finishing the task. His supplies would run out, or the job would be botched. But Spahi and the youngling were eager and intelligent. Eventually, after false starts and tools dropped in the snow, they finished. The shuttle once again stood straight, on newly-mended skis; only the black marks scarring the paint showed where mending had been done.

Carl offered Spahi and the youngling a ride to the village, but they refused, saying they wished to gather the thran meat, and the distance was not great. Tired and weak, Carl did not insist. He watched the two figures—one large, one small—dwindle into the blizzard.

They went out of their way to help me. I know their world is doomed, and no attempt will be made to save them. They braved the winter mountains for a stranger—and for duty to their prey.

He felt sick, and was unsure whether it was due to hunger or residual infection. He launched the shuttle into orbit, to intercept the *Brendan*.

XIII.

Nina was frantic. Carl's first radio message in nine days had not explained his delay. He sounded weak and confused. She feared brain damage from exposure.

Still, she was not prepared for the sight of him as he staggered into the living quarters. She had expected gauntness and filth, but not wasting illness. One arm of his heat-suit was ripped.

"Carl—let me help you out of that—"

"I'm all right." He tried to fend her off and winced.

She saw the foam splint. "You're hurt! Here, don't be ridiculous." He swayed and almost fell. She stood under his arm, bracing him on her shoulder and steadying him as she led him to the

locker. She supported his right side, and it was not until she helped him undress that she noticed that his left arm, not only his suit, was gashed—red with infection. She discarded the suit—fortunately they carried spares—washed him, and inspected his wounds. The cuts on his left arm were swollen, their edges gaping. They should have been closed at the time. Now they would require surgical unscarring. His right hand, at least, was properly foam-splinted—that injury must have happened earlier. By now the foam was dirty and split, and the skin on Carl's left arm showed signs of frostbite. He was flushed and gaunt, his ribcage sharp, his wrists and ankles almost fleshless.

Still supporting him, she slid him into his bunk. She looked down at him, already collapsed into sleep, and opened the panel between their rooms, lest he need her in the night.

§ § §

Waking on crisp bedding, Carl first noticed the gravity; he felt too heavy. Why was he warm and clean? Then he moved. *His hand!*

That, and the ache in his left arm, brought him awake. He lay in a dimly-lit oblong room, crowded and narrow. Next to his bed, though, the panel was slid back—how did he know there had been a panel?—and his bunk lay close to another.

He moved his right hand over his head and rolled over. Someone slept in the adjoining bunk. He reached out his left hand—never mind the pain of stretched skin—and touched soft flesh. A woman!

She turned in her sleep. "Carl?"

Who was Carl? There was something he should do now. His breathing was faster and he was operating by instinct. He reached out with his right hand, but it was encased in plastic. His left arm brushed the covers, scraping raw, bandage-sprayed flesh. Pain stopped him. With a groan he fell back and covered his face with his right arm. Soon he slept.

§ § §

After Carl woke her, Nina did not sleep. She watched him. He would need febrifuge, more broad-spectrum antibiotics, perhaps stronger painkillers, and that hand must be set.

She kept thinking of him as a patient. She need not have opened the panel, merely turned on the intercom; or she could have worn clothing to bed. What had she hoped would happen? She and Carl had never been close.

When later she used the boneviewer to set his hand, though,

she could have caused him a bit less pain.

§ § §

As Carl convalesced from his injuries, he spoke little to Nina. He prowled the *Brendan*. Would he were again on the planet's surface, in the cool snows—his fever made him thirsty. His body seemed awkward, gangly.

The small brown female, Nina, followed him everywhere, asking him questions he could no longer answer. She fed him medicine, as if he were a youngling. She did not seem to understand that there was something he must do.

The black star. If he were eaten by a star, he would become one himself. As would she, who loved stars, who studied them. Time was short, and he must return to his own people at the last.

§ § §

Though the panel was no longer left open between their quarters, the lock was flimsy. Carl waited until Nina slept, after a longer-than-usual work shift. He tried to sense if her breathing were slow and regular. At times now, he could hear things past the limits of sound—

He slid the panel open. Nina lay, small and alien, on her narrow couch, curled on her side. He struck her once, then again.

After the first blow she awoke, but too late. He carried her down the corridor and wrestled her into a heat-suit. She too should be prey for the dark star.

§ § §

Nina let herself be dragged from the shuttle.

There was no point in resistance. Carl was mad. She had known that for days, but she'd never thought he might become violent. At least he'd remembered to put her in a heat-suit.

Snow coated the ground; the winter twilight was orange. Nina had stood on many other planets, but the skyraking mountain peaks, the dimness, and the cold frightened her; that, and her knowledge of what approached from space.

Two natives came across the snow. They looked much like the pictures she had seen; one was large, one much smaller, possibly young. If she could speak to them, she might call for help—but Carl had the simulator, and she did not know their language.

The taller alien spoke in musical whistles. From the tape she'd heard, she recognized the cadences.

Carl, carrying his simulator, responded, then turned toward her. "This is Spahi, who saved my life. He has two children, the size of your hand, whom he carries with him. His companion,

curious about off-worlders, is a youngling. He will never have a name. He went out in the snow and the dark, menaced by wild animals, to find my survival kit. He and Spahi helped repair the shuttle, and tried to nurse me after my bout with a thran, when I suffered from exposure and infection. I reached their village crawling, and they took me in."

In the middle distance, Nina saw a huddle of low domed huts; smoke curled from their tops. She did not want to meet these people—these aliens. She never wanted to see a hut again.

"I killed the thran with a spear, the traditional way. Now I might have a name. But my people are to die, and they do not even know what awaits. I must tell them."

"Carl, no!" Nina heard the simulator whistling, and knew she was too late. She watched the two aliens, expecting a violent reaction. The larger one—Spahi, she supposed—whistled, pointed to the few sprinkled stars, and then to itself.

Carl, through the simulator, whistled more urgently, and gestured toward the shuttle; Spahi walked away, toward the village. The smaller one—the youngling?—tarried.

If she could only reach the shuttle while Carl was distracted—but the deep snow would make her clumsy.

§ § §

"A black star will eat our sun?" the youngling asked.

"Yes. This woman knows, but she cannot speak to you. She studies the stars."

"Spahi will neither go with you, nor send his children," said the youngling. "He says that to be eaten by a star is to become a star, and live with the gods."

"But you will all die," said Carl. "And none will remember you."

"Who can forget the stars?" The youngling turned to go.

"Wait! The ice will melt, the ground will shake, and the air will burn. You will all die. Dying hurts." *Dying hurts*—how do I know? Has it happened to me before? *Air turned to fire, the sun devoured, its cooling embers scraps after a feast. Who ate the sun? The blood-mouthed wolf—and the gods themselves are dead.*

A small, silver-suited figure rose and ran for the shuttle. Carl leapt after it. *Prey!* He threw her to the snow; she raised a knee and struck. He was enraged; he throttled her.

She fought loose and ran into the twilight, into the falling snow. Carl watched her and snarled. She, who had dismissed Mancken's World—*where was that?*—as irrelevant; she would die out there

in the snow, frozen, devoured by thrani, or scorched by solar flares.

He looked down at his hands. *What was he doing?* He was human, as was she.

The youngling watched nearby. "Come with me," Carl said. It backed away. "Come and live."

It looked at the shuttle, and whistled, "I would rather the stars ate me. I understand the stars." It retreated further.

"Then, take this to Spahi, as a hosting-gift." Carl unfastened his pouch and tossed the spear-point into the snow. The youngling scrabbled for it, then ran.

Carl watched him go, a frightened figure fleeing into twilight. He stumbled back into the shuttle and slammed the door against the wind.

Nina was out there in the dark. He stared again at his hands. He had tried to kill his shipmate. He was going alien; there was no question. But not gently alien like the folk of Mancken's World; he was a berserker.

He had to find Nina, bring her back. She would not dare return by herself, after what he had done. But if he went out searching, she might circle back to the shuttle and strand him there. If the shuttle were disabled, she would have to wait for him, and he could explain, apologize—

He opened the control panel and surveyed the mass of circuitry. Something vital, but small; no, not the ignition, that could be bypassed. But the fuel-feed control—he snapped out the unit. Small enough to carry, no larger than one of Spahi's children. Without it, takeoff was impossible.

He closed the panel again. While she tried to locate the trouble he would have more time to get back, to talk with her.

He slipped the unit into his pouch and went out in search.

§ § §

Nina fled into the dark, without direction. Anywhere to escape Carl. He had trapped her on an alien planet, in the dead of winter.

Even worse, she knew what would soon happen.

The snow crust was not quite strong enough to hold her; she broke through from time to time, stumbling blind, hip-deep in drifts. She had to get away and plan her strategy.

She was unarmed, but there was a rocket pistol on the shuttle. If she could get back—as long as Carl was not there—

The low, scraggly brush afforded little cover. She crouched,

looking for the glint of the shuttle. The stars gave little light—

There! A flash of yellow as the door opened, then closed again. He was coming after her! He could track her in the snow! She ran again, gasping, floundering.

"Nina!" the voice came over her suit radio.

"Nina, this is Carl. Come back. I'm all right now. Come back. Can you hear me?"

She dared not answer. She'd watched him change. For the first time since Haiti she was afraid of another human being. She ran in silence until almost exhausted. When again she plunged through the crust, she felt not frozen ground, but empty air. Then the snow-cornice crumbled and she fell onto gravel, ice, and a trickle of water. After one bright red moment of pain, she could not feel her legs.

She lay in the icy stream trying not to cry out, for fear she would be heard. She had no idea where Carl was. He might be very near. She must hide beneath the treacherous overhanging banks, anything to be out of sight. *But her legs wouldn't move.* It couldn't be from the cold, not this soon, not with her heatsuit.

Gripping the rocks of the stream bed with her gloved hands, she dragged herself out of the water.

§ § §

Nina wouldn't answer on the radio.

There were forty hours left, thirty-five to activate the Jump drive and flee the system. He had to find her. If only he could keep from going alien again.

You're finished, Carl. You never dare ship out on another mission. Twice now. The first time was bad enough, but this time you almost killed—you can't trust yourself a third time.

He circled until he saw her tracks, leading away from the shuttle into the hills; light impressions on the crust, then larger marks where she broke through and fell. But it was dark, and her tracks were crossed by those of thrani and villagers. Carl was no woodsman. He stood, confused.

From time to time he called on his suit radio, but there was no answer.

After the twenty-hour night, dawn rose. Ten hours of daylight; then, the last twilight would fall.

He sought Spahi, but he and the youngling would not help. "If the sky-creature fled, it must have a reason," Spahi said. "Such is its right. Perhaps it wishes to become a star. You said it studied stars?"

"She will not answer when I call her," Carl said. "She may be hurt."

"If it wished to speak to you, you have a device it could use. So it must not wish to speak with you."

"It was afraid," the youngling said, staring at Carl. "If your own folk are afraid of you—" He left the thought unfinished.

§ § §

Twilight fell, and Nina knew the time was growing near. She was certain, now; her back was broken, and her spinal cord snapped. Paraplegic. She could never again go to space.

Twilight was deepening. Only hours remained. She switched on her suit radio.

§ § §

"Nina! Where are you?" She was still alive! He could take her back to the *Brendan*, they could both escape.

"Never mind." Her voice was weak. "You're still planetside."

"I couldn't leave you."

"You will have to. I am injured, and I am not coming back. You must get our records home."

"I don't care, now."

"I'd rather die than live crippled. Do this for me: get the data to the Academy. Don't let our work go for nothing."

Carl considered. "I'll quick-feed it to the *Brendan* and send a whitespace capsule."

"Do you have time? Besides, my last observations aren't—finished—yet. I hadn't completed—the records—they're not cold-stored."

"I can't leave you here to die."

"*I won't go back to a desk job.* Do you want to die here too? Do you know how it will be? When the flares hit it will be night. First we'll see auroras, then the wind will start, as the atmosphere is sucked away; and the air will burn. Do you want to stay for that? And all our work, all the memory of your precious natives, my observations, gone for nothing? I don't think you can find me in time. You have to get back to the *Brendan*, ready it for Jump, store my records. Get off-planet, Carl. Do one last thing right."

"Nina, I can't—"

"*Get the hell out!* All I had was my work. Let Nina LeClerc make one final contribution."

Her radio clicked off and she would no longer respond.

§ § §

Twilight deepened. Carl sat and thought, then re-installed the fuel-feed regulator.

Aboard the *Brendan* he collected all the data Nina had left and fed it safely into chilled storage, with his own records. The *Brendan* spun, and Epsilon Eridani itself came into view. The porthole darkened, and Carl could faintly discern the solar disk. Disk? It was flattened now, bulging. Soon tidal action would pull flares out into space—

He knew what that would mean on the planet. Winds, as the atmosphere boiled away, winds wild enough to flatten stone huts. *And who rides the wind?* Then heat and radiation would follow. Nina had explained it all.

Nina. She'd done nothing wrong. She couldn't help being cold. Cold. The thought of her, huddled somewhere on Mancken's World. He'd followed her last wish.

What kind of man am I? He headed for the engine sphere. Carl knew little of Jump engines, but what little he knew was enough. He was able to make the final adjustments; they were not, after all, particularly delicate. The *Brendan* would reach Earth much faster in whitespace.

XIV.

Spahi had summoned the tribe to gather at the old bard's house. The ship was gone; now; he watched it go, then tracked the frightened, abandoned sky-creature to its hiding place in the creek. He carried it to the hut; it could not speak with him, but it knew the stars, and should be with the rest of them at the last. It might speak with the Black Hunter.

Those who had names gathered around the hut, leaving the younglings and children within.

The sky-being was, as a courtesy, put with the adults. Spahi, on the outermost rim of the circle, hefted his coveted metal spear-point. If the gods approved his guest-gift, they might make him into a very bright star.

He heard the sky-creature whimpering.

§ § §

Nina lay surrounded by alien shapes. They had found her in the creek—how, she did not know—and, when they carried her toward their village, she saw the shuttle was gone. Just as well. Better a quick, clean death.

But she was afraid. How would it feel to die this way? She knew the process—howling winds and thinning atmosphere.

A black, dead star. I gave my life to the study of stars; now the ghost of one comes for me. Then she knew what her grandmother had sent for her.

She screamed as the sky danced in flame.

XV.

The Academy cadets filed in for the report on the Epsilon Eridani expedition. Some upperclassmen had known Carl and Nina personally.

An Administrator came onscreen. Partially paralyzed, her left arm and the right side of her face were drawn tight. What expedition had grounded her?

"The Scout II *Brendan*, sent to observe a short-lived phenomenon in the Epsilon Eridani system, has met with one fatality and one—singularity. Nina LeClerc, Astronomy, is missing and presumed dead. The xenologist, Carl Thorstensen, returned through whitespace with the data." The cadets shuddered. "Xenology majors are to gather immediately after this assembly for a clinical conference.

"Astronomy will hold a memorial service for LeClerc.

"Any cadets who wish to resign may do so without prejudice." It was the usual offer. Only a few cadets stood to leave. The upper-class xenologists and astronomers departed, either to conference at the Explorers' Hospital, or to LeClerc's memorial service.

They knew what could happen, but they still wanted the stars.

A THIRD SOLUTION TO THE VOYAGE OF THE BAGEL

(from page 136)

On any graph, a "loop" (a line that joins a point to itself) adds *two* more lines to the point. Therefore, it has no effect on the point's evenness or oddness.

LETTERS

Dear Mr. Scithers,

I just finished reading the 4th *IA'sfm* and I enjoyed it as much as the other two I have. I was very glad to see that the rate for subscriptions was lowered, and I plan to subscribe as soon as I wheedle the money out of my husband. I have to admit I am very glad to see there are no serials, and I hope you don't plan to start any. I was also wondering if there was any way I could get a copy of the first issue? The second issue caught my eye as I passed a magazine rack, and I'd love to have every single one. Please give my regards to Dr. Asimov, as his editorials are the only ones I have ever read in any type of magazine or paper that haven't bored me silly. I actually look forward to them.

Much love and respect.

Cyndi Keegan
Scotts Valley CA

Get your husband to read the magazine, and he'll cough up the money like a shot.

—Isaac Asimov

Gentlepeople,

You have disappointed me. Since Dr. Asimov was running out of profiles, I had hoped that the back of his head would grace the cover. I would have settled for his feet. Now you look like everyone else.

Please continue to publish new writers. Those of us with drawers full of rejection slips need the encouragement.

Sincerely,

Doroth Sedlor
Manchester CT

There was an obvious disadvantage in getting me in different poses. Who knows to what depths the artists would finally have sunk?

—Isaac Asimov

Dear Editor,

I'd like to thank you for four issues of a great SF magazine.

Since *If* folded in 1974, I've only been reading *Analog* and *Galaxy*; and it's a pleasure to see that someone will start a new magazine. It's only a pity that your distributor sometimes plays games at the newstand. I also have trouble buying *Starlog* for the same reason.

In my four years of reading SF, I have always been trying to find errors. I never thought that I would find an error in one of Isaac Asimov's stories, though. On pages 66 and 68 of "The Missing Item," Dr. Asimov said that Mariner Nine reached Mars in 1969.

Mariners Six and Seven reached Mars between July 29 and August 5, 1969, respectively. Mariner Eight landed in the Atlantic, and Mariner Nine reached Mars on November 13, 1971.

It is a pleasure to see that Dr. Asimov can also err. It's just an example of getting your facts straight, that's all.

May the Force be with you,

Gary L. Adler
Lynbrook NY

I assure you it is a pleasure to make an occasional error. If I really had a perfect record of accuracy, the strain of maintaining the perfection would kill me.

—Isaac Asimov

Dear Mr. Scithers,

Until last week the only science fiction magazine I read with regularity was *Starlog*. After hearing about *IA'sfm* I had to pick up a copy for myself, and was not at all displeased with it. Any magazine that encourages contributions from "closet writers" has my full support.

Two things bugged me.

1. My copy had not one but *two identical* cigarette ads within (I know you gotta pay for this thing but come on, fellas!)
2. I saw no contributions from women writers.

As a woman and (non-militant) feminist I am interested in the contributions of women to the arts. Women's science fiction is often unique and fascinating, and I think it deserves the kind of showcasing that magazines such as this can provide. I'm sure this is not an oversight on either your part or Dr. Asimov's. I am confident that you will provide women writers the kind of exposure that few if any other sf magazines have given.

Hoping for your brilliant future,

Vanessa L. DeLapp

We have already published stories by women in issues you did not see, and will continue to do so in the future. I hesitate to speak for George who is an austere gentlemanly type—but I assure you I love everything about women.

—Isaac Asimov

Dear Dr. Asimov:

I sincerely regret what I am about to say. Until I received an issue of your magazine, I was a total I.A. fan. I have 87 of your books, and for the past year I have read *nothing but* I.A. books. (Is there a need for any other kind?)

But when I read your magazine, I was shocked! Stunned!! DUMBFOUNDED!!! There actually are people who are as enjoyable to read as you. What a superb magazine! I'll even forgive you for sending your Fall issue two weeks *after* your Winter issue.

I must now inform you that although I will still read as many of your books as I can get my hand on, I will also read other authors.

Forgive me.

Ross L. Mathis
Warwick RI

Dear me, I am creating a Frankenstein's monster. But that's all right—as long as you read the other writers within the pages of this magazine.

—Isaac Asimov

Dear George:

Another excellent issue! You have some great stories here; I especially liked "To Sin Against Systems." I really love your magazine, and I hope it gets the Hugo.

I can't *wait* until *IA'sfm* becomes a monthly. We readers have the right to enjoy *IA'sfm* at *least* every four weeks. Of course you'll need more stories, and we readers will be right here to supply them (at least we'll *try*).

Isaac: *Aha!* I have finally figured out one of your Black Widowers mysteries! (Before the end, that is.) Don't feel too bad, though, mystery stories are *supposed* to be written for the reader to figure

out. Anyway, it was a great story, and I hope we'll see more of the Black Widowers with their "scientific" problems in future issues.

Thanks for the pleasure,

Curt Tuckey
Vermontville MI

Science fiction readers are harder to fool than others—for obvious reasons involving intelligence. But George would like to have me try again, and he's the boss, so eventually—

—Isaac Asimov

Dear Mr. Scithers,

I must admit that when I read the announcements of *IA'sfm* in that other magazine for which the Good Doctor (hopefully still) writes, I was somewhat less than enthusiastic, for a number of reasons. After all, how many SF magazines have started up in the last few decades only to fold ignominiously a few issues later? And, of course, I was a bit leery of the flagrant capitalization on the Good Doctor's name.

I was pleasantly surprised, then, when my resistance finally broke down and I purchased a copy from a newstand, it being the only possibly acceptable reading matter available to alleviate the impending boredom of a long airplane flight.

The pleasant surprise was the quality of the writing—consistently good—and the obvious editorial policy of choosing upbeat stories rather than some of the strange and depressing writings coming forth lately. I particularly liked "Heretic in a Balloon," by L. Sprague de Camp (who has been tops on my list of gentle satirists ever since I read "The Incomplete Enchanter").

Now I'm not so afraid of seeing another promising magazine fold. I think that *IA'sfm* will fill a gap in the current set of publications by providing us readers with some lighter entertainment in our favorite genre.

Thank you all, and I wish you continued success.

Sincerely,

Lois A Rose
Hackensack NJ

I wish the use of my name were simply a matter of flagrant capitalization, but I assure you that George holds my feet to the fire and keeps me working.

—Isaac Asimov

Dear Dr. Asimov,

Being an avid reader of *Ellery Queen's Mystery Magazine*, I was disappointed to see that you and the Black Widowers have abandoned their pages in favor of your own magazine. Well, against my better judgment I bought the magazine, and I thought the BW's story was great.

But then I read the rest of the magazine, and was surprised to see that I enjoyed most of it. The stories by Osgood and Busby were my favorites, and the rest were better than you find in most magazines. So, in all probability, I will be buying all your upcoming issues, Black Widowers or no Black Widowers.

Louis Kesten
Newport News VA

I have not abandoned EQMM. There will be Black Widowers appearing there, too. But if a BW story lured you on to read this magazine, it performed a noble task.

—Isaac Asimov

From time to time, we must remind you that Letters to the Editor should be addressed to the magazine here at Box 13116, Philadelphia PA 19101. The same address should be used when you ask for a copy of our instructions on format and our description of needs (and please include a business-sized, stamped, self-addressed envelope when asking for these), as well as for manuscripts which you send to us. It only delays matters if you send manuscripts to the subscription department, or money to the editorial address.

We are very much interested in what you like best, like second best, and so on about this issue of the magazine. We are also anxious to find out how distribution is working; when did this issue actually reach your newsstand?

—George H. Scithers



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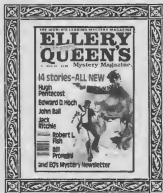
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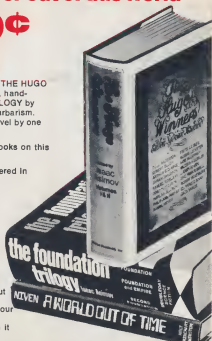
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